



Ground Investigation Factual Report

Project Mensa Additional Site Investigation of Land
Surrounding Buildings 8S2, 8F2 and 8F3B

AWE plc

Prepared by:
Chris Warde

Authorised by:
Rob Jones

St. Anne's House
Oxford Square
Oxford Street
Newbury
Berks
RG14 1JQ

Tel 01635 279000
Fax 01635 279050
Email rpssw@rpsgroup.com

JER3996/8S8F/LQA/F
Revision: 0
December 2008

This report has been produced by RPS within the terms of the contract with the client and taking account of the resources devoted to it by agreement with the client.

We disclaim any responsibility to the client and others in respect of any matters outside the scope of the above.

This report is confidential to the client and we accept no responsibility of whatsoever nature to third parties to whom this report, or any part thereof, is made known. Any such party relies on the report at their own risk

RPS Planning and Development Ltd. Registered in England No. 02947164
Centurion Court, 85 Milton Park, Abingdon, Oxfordshire, OX14 4RY
A Member of the RPS Group Plc



FS 32940

Planning & Development

Contents

Contents	i
1 Introduction	1
1.1 Background.....	1
1.2 Report Structure	1
2 Site Location and Description	2
2.1 General Description of AWE Burghfield.....	2
2.2 General Description of Project Mensa Area.....	2
2.3 General Description of the Land Surrounding 8S2, 8F2 and 8F3B	3
2.3.1 <i>Land Surrounding 8S2</i>	<i>3</i>
2.3.2 <i>Land Surrounding 8F2 and 8F3B.....</i>	<i>3</i>
3 Ground Investigation Methodology.....	4
3.1 Summary of Ground Investigation Siteworks.....	4
3.2 Investigation Standards	5
3.3 Exploratory Hole Location Survey	5
3.4 Radiological Surveying and Monitoring	5
3.4.1 <i>Monitoring Equipment.....</i>	<i>6</i>
3.4.2 <i>Operational Monitoring.....</i>	<i>6</i>
3.4.3 <i>Radiological Survey Results</i>	<i>7</i>
3.5 Intrusive Exploratory Holes	7
3.5.1 <i>Machine Excavated Trial Pits.....</i>	<i>7</i>
3.5.2 <i>Boreholes.....</i>	<i>8</i>
3.5.3 <i>Soil Gas Monitoring During Drilling and Excavations.....</i>	<i>8</i>
3.6 Gas Monitoring	9
3.7 Groundwater Monitoring and Sampling	10
3.8 Sampling.....	11

3.8.1	<i>Soil Sampling</i>	11
3.9	Laboratory Analysis	12
3.9.1	<i>Introduction</i>	12
3.9.2	<i>Soil Explosives Suite</i>	12
3.9.3	<i>Radiological Suite For Soils</i>	13
3.9.4	<i>Soil Chemical Analytical Suites</i>	14
3.9.5	<i>Groundwater Explosives Suite</i>	15
3.9.6	<i>Radiological Suite For Groundwater</i>	15
3.9.7	<i>Chemical Analytical Suites For Groundwater</i>	16
3.10	QA/QC Sampling Protocols	17
3.10.1	<i>Sampling Storage and Transportation</i>	17
4	References	18

Tables

Table 3.1 Summary of Trial Pit Locations and Final Depths

Table 3.2 Summary of Soil Sample Types

Table 3.3 Explosive Determinants for Soils

Table 3.4 Radiological Determinants

Table 3.5 Chemical (Basic Suite) Determinants

Table 3.6 Chemical Determinants (Additional Analysis)

Table 3.7 Explosive Determinants for Groundwater

Table 3.8 Radiological Determinants for Groundwater

Table 3.9 Chemical Determinants for Groundwater

Drawings

JER3996-8S8F-001b Sampling Locations for 8S2E and 8S2W

JER3996-8S8F-002b Sampling Locations for 8F2 and 8F3B

Appendices

Appendix A	Operational Radiological Monitoring Results
Appendix B	Exploratory Hole Logs
Appendix C	Gas and Groundwater Monitoring Results
Appendix D	Explosives Results – Soils
Appendix E	Radiological Results – Soils
Appendix F	Chemical Results – Soils
Appendix G	Explosives Results – Waters
Appendix H	Radiological Results – Waters
Appendix I	Chemical Results – Waters

1 Introduction

1.1 Background

RPS Planning and Development (RPS) have been requested by AWE plc (Order ref. 30068054/0 dated 5th August 2008) to undertake a ground investigation to support the AWE Project Mensa development. Data on the ground conditions in the vicinity of Buildings 8F2 and 8F3B, and where Building 8S2 stood prior to demolition, is required to enable AWE to facilitate the design of a proposed new industrial facility at AWE Burghfield.

This factual report provides a detailed account of the intrusive ground investigation and associated groundwater and soil gas monitoring undertaken, as outlined within the Ground Investigation Proposal (*Ref. 1*). The data gathered from this investigation will be used by AWE plc to assess any risks associated with future developments at the site.

1.2 Report Structure

The remainder of the report is structured as follows:

Section 2; Site Location and Description;

Section 3; Site Investigation Methodology, and

Section 4; References.

2 Site Location and Description

2.1 General Description of AWE Burghfield

The AWE Burghfield site is located approximately 0.5 km east of Burghfield village and 6km to the south-west of Reading. The National Grid Reference for the site centre is approximately SU 680 680. AWE Burghfield is around 264 acres in size and roughly rectangular in shape. The topography is relatively flat with a general slope from south (46.5 mAOD) to north (42.5 mAOD).

AWE Burghfield is an operational site operated by AWE plc to produce explosives, explosive devices and assemble weapons associated with AWE's operations in their capacity to maintain the UK nuclear weapons capability. Consequently, some areas of AWE Burghfield are nuclear licensed.

Access to AWE Burghfield is from the north-west, via a road called 'The Mearings'. AWE Burghfield is surrounded by a high security fence and is subject to strict security controls. The eastern, southern and western edges of AWE Burghfield are bounded by roads.

A small stream, Burghfield Brook, flows along the southern and eastern edges of AWE Burghfield.

2.2 General Description of Project Mensa Area

The Project Mensa Development covers approximately 21.2 hectares and the bulk of the area is situated in the centre of AWE Burghfield. The Project Mensa Development also includes areas at the Main Gate to the northwest of the site, Pingewood Gate to the north east of the site, and access roads linking these three areas. The Mensa site is not within the nuclear licensed area.

2.3 General Description of the Land Surrounding 8S2, 8F2 and 8F3B

2.3.1 Land Surrounding 8S2

The 8S2 area is located in the central northern part of AWE Burghfield and at the time of the investigation, comprised an area of wet clay following the recent demolition of Building 8S2. The area, approximately 85m x 45m in size, was fenced off from the surrounding areas and was being gradually levelled as part of the Phase 2A demolition / groundworks for the Mensa development.

To the north lies Trident Way, to the east is situated Building 801, and the land to the south and west comprises the remainder of the Mensa demolition area.

2.3.2 Land Surrounding 8F2 and 8F3B

The 8F2 and 8F3B area is situated in the central eastern part of AWE Burghfield lying almost totally within the Zone 2 fenced area. The investigation comprised two discrete areas:

- i. A rectangular parcel of land approximately 110m x 35m in size which is predominantly grassed with three mature trees, one building (8F2) and small amounts of concrete and tarmac hardstanding. To the immediate south lies Building 8F3B, whilst the vicinity of the area is predominantly grassed with occasional trees and buildings surrounded by blast bunds. Street 7, running approximately north to south, lies to the east immediately beyond the Zone 2 fence.
- ii. A rectangular parcel of land approximately 30m x 25m in size which is predominantly grassed but includes an area of hardstanding to the east of the Zone 2 fence and part of the Gate 10 building. To the south lies Building 8S5, to the east lies the Zone 2 fence with Street 7 and a car park beyond, whilst the buildings and hardstanding of Zone 4 lies to the north and grassed areas with buildings lie to the west.

3 Ground Investigation Methodology

3.1 Summary of Ground Investigation Siteworks

The sampling locations are provided on *Drawings JER3996-8S8F-001b* and *JER3996-8S8F-002b*. The main element of works comprised the excavation of twenty trial pits, four hand dug pits and five boreholes to investigate the ground conditions at the site.

The intrusive ground investigation works comprised the following work items:

- Provision of an Environment, Health and Safety Plan for the works, including risk assessments and method statements;
- Full time management and supervision of the works by consultants from RPS;
- Support to AWE by qualified staff from RPS to enable a Certificate of Underground Services of all sampling locations to be issued;
- Radiological Screening and Monitoring of all locations by a Health Physics Supervisor to provide radioactivity assurance monitoring to protect staff involved in the survey work prior to and during excavations;
- Implementation of Explosive Safety Management and Ordnance Clearance Regime in order to ensure that any site investigation work is conducted safely with respect to the risk from explosives and buried unexploded ordnance;
- Excavation of 20 trial pits to depths of up to 4mbGL (metres below ground level) or until natural ground was proven to facilitate characterisation of the soil material present at the various sites shown in *Drawings JER3996-8S8F-001b* and *-002b*, with the collection of soil samples for laboratory radiological, chemical and explosives analysis.
- Shell and Auger drilling of 2 boreholes to a depth of 18.00mbGL and 3 boreholes to a depth of 6.00mbGL, fitted with gas and groundwater monitoring wells to facilitate the characterisation of the underlying groundwater;

- Completion of four hand dug pits to a maximum depth of 1.2mbGL to assess contamination in land drains;
- Analysis for Volatile Organic Compounds (VOCs) in soils using a photo-ionisation detector (PID) during trial pitting and sampling;
- Radiological, Explosive and Chemical analysis of soil samples as outlined in the Ground Investigation Proposal (*Ref. 1*);
- Three rounds of Gas and Groundwater Level Monitoring to monitor for potentially hazardous ground gases, VOC vapours, gas flow rates and water levels; and
- Topographic Survey to locate trial pit, borehole and hand dug pit sample locations relative to Ordnance Datum and National Grid Reference.

3.2 Investigation Standards

The investigation was set in the context of relevant UK guidance and legislation relating to the pollution of land and controlled waters. The investigation was based on British Standard BS10175:2001 '*Investigation of Potentially Contaminated Sites – Code of Practice*' (*Ref. 2*).

All fieldwork and laboratory analysis was undertaken based on BS5930 (*Ref 3*) and BS1377 (*Ref. 4*).

3.3 Exploratory Hole Location Survey

The co-ordinates and levels of the trial pit positions were surveyed by Engineering Land and Building Surveys Limited following the completion of the site works. All positions and elevations were recorded to ordnance survey grid and are shown on *Drawings JER3996-8S8F-001b* and *-002b*.

3.4 Radiological Surveying and Monitoring

Due to part of AWE Burghfield being operated as a Nuclear Licensed Site, and based on the potential for radiological materials to be present within the ground underlying the site, radiological monitoring was undertaken at each borehole and trial pit position by the RPS Health Physicist for reassurance purposes. The sampling

locations were surveyed for radiological activity prior to commencement, and during all site works, to ensure that no significant radiological hazards existed that could represent an unacceptable risk to workers.

3.4.1 Monitoring Equipment

The equipment used for the radiological monitoring comprised the following radiation / contamination survey meters:

- Exploranium GR-135 MinSPEC – a hand held Sodium Iodide gamma spectrometer;
- NE Electra rate-meter with DP6 probe for detection of alpha and beta radiation.

Valid calibration certificates accompanied all instruments. The Electra/DP6 had been calibrated using, *inter alia*, a natural uranium source, ensuring that the instruments' responses had been determined against the most likely contaminant on the site.

Prior to use, each instrument was subjected to a comprehensive daily functional check.

3.4.2 Operational Monitoring

Pre-screening of all the areas selected for investigation was undertaken utilising the survey meters listed in *Section 3.4.1*. At each of the sampling locations, background readings for the instruments were determined at waist height. Monitoring of the local surface surrounding the location was undertaken prior to work commencing. The observed count-rate was compared with the background count-rate and if the observed count-rate was less than twice the background count-rate it was inferred that the area was free from significant radiological contamination close to the surface. If observed count rate was less than twice background, the sampling operations could commence without restriction.

At no time during the excavation and sampling operations were levels of radioactivity encountered indicative of radiological contamination.

It was not anticipated that any elevated levels of radioactivity would be encountered, however monitoring of excavated material was undertaken at regular intervals

throughout the sampling process to reinforce the conclusion that the radiological hazards to site staff associated with the works were not significant.

3.4.3 Radiological Survey Results

Operational monitoring results are summarised within *Appendix A*.

3.5 Intrusive Exploratory Holes

3.5.1 Machine Excavated Trial Pits

During the ground investigation a total of twenty trial pits were excavated up to a maximum depth of 4mbGL using a JCB wheeled excavator.

Throughout the excavation of the trial pits, health physics and explosive ordnance monitoring was undertaken. An Environmental Consultant from RPS logged the arisings and collected soil samples at regular intervals throughout the excavations. Where potentially contaminated materials were identified on a visual and olfactory basis, additional samples were collected and scheduled for appropriate chemical analysis. Upon completion, the trial pits were backfilled with arisings.

Copies of the exploratory hole logs are provided in *Appendix B* and the locations of the Trial Pits are shown on *Drawings JER3996-8S8F-001b* and *-002b*

A summary of the trial pit locations and final depths is provided in *Table 3.1*.

Table 3.1 Summary of Trial Pit Locations and Final Depths

Trial Pit Location Reference Number	Depth (mbGL)
TP8S-001	3.00
TP8S-002	3.00
TP8S-003	3.00
TP8S-004	3.00
TP8F-001	3.10
TP8F-002	3.00
TP8F-003	2.90
TP8F-004*	1.20
TP8F-005	3.20
TP8F-006	3.40
TP8F-007	3.40

Trial Pit Location Reference Number	Depth (mbGL)
TP8F-008	2.40
TP8F-009	2.90
TP8F-010	3.60
TP8F-011	3.30
TP8F-012*	1.20
TP8F-013	2.60
TP8F-014	2.60
TP8F-015	2.20
TP8F-016 [#]	1.20

* Trial pit terminated due to instability.

[#] Trial pit terminated due to proximity of steam pipe and buried services. Hand pit only.

3.5.2 Boreholes

During the ground investigation a total of five boreholes were drilled. Two boreholes (BH8S-001 and BH8F-003) were drilled to 18.00mbGL and three boreholes (BH8F-001, BH8F-002 and BH8S-002) were drilled to 6.00mbGL using shell and auger drilling equipment.

Copies of the exploratory hole logs are provided in *Appendix B* and the locations of the Boreholes are shown on *Drawings JER3996-8S8F-001b* and *-002b*.

Throughout the drilling of the boreholes, health physics and explosive ordnance monitoring was undertaken by RPS. An Environmental Consultant from RPS logged the arisings and collected soil samples at regular intervals throughout the excavations. Where potentially contaminated materials were identified on a visual and olfactory basis, additional samples were collected and scheduled for appropriate chemical analysis.

Upon completion, gas and groundwater monitoring wells (3 wells to 6mbGL and 2 well to 18mbGL) were installed and the details of which are also shown on the borehole logs.

3.5.3 Soil Gas Monitoring During Drilling and Excavations

A MiniRae field photo-ionisation detector (PID) fitted with an 10.6 eV lamp was used to conduct headspace tests on soil samples during drilling and trial pitting to detect the presence of Volatile Organic Compounds (VOCs). Additional soil samples were

collected and analysed when visual or olfactory evidence of organic contamination was noted or considered necessary by the supervising RPS Environmental Consultant. Where elevated concentrations of VOCs were detected, additional soil samples were collected for organic chemical laboratory analysis.

The results of this soil gas monitoring are included on the exploratory logs contained in *Appendix B*.

3.6 Gas Monitoring

Three rounds of gas monitoring of ground gases was undertaken prior to the sampling of groundwater. These rounds took place during the weeks beginning September 1st, 15th and 29th 2008. The monitoring of ground gases was carried out using a calibrated Gas Data LMS XI portable gas analyser and a MiniRae field photo-ionisation detector (PID) fitted with a 10.6 mV lamp. The parameters measured and recorded during the gas monitoring round are as follows:

- Gas Flow Rate (l/hr);
- Well Pressure (Pascals);
- Flammable Gases (as Methane (CH₄), (0-100% v/v);
- Percentage of Lower Explosive Limit (0-100% LEL);
- Carbon Dioxide (CO₂, 0-100% v/v);
- Oxygen (O₂, 0-100% v/v);
- Hydrogen Sulphide (H₂S, ppm);
- Carbon Monoxide (CO, ppm);
- Atmospheric Pressure (mb); and,
- Volatile Organic Compounds (VOCs, ppm).

The gas analyser was flushed with ambient air between monitoring wells to ensure the measurement of accurate results at each well. Weather conditions and

atmospheric pressure were recorded at the time of visit. Results of the gas monitoring are provided in *Appendix C*.

3.7 Groundwater Monitoring and Sampling

RPS carried out three rounds of groundwater monitoring at each monitoring well location and these were undertaken in the weeks commencing September 1st, 15th and 29th 2008. Groundwater samples were collected from the new groundwater monitoring wells for laboratory analysis.

Groundwater level monitoring was undertaken following the measurement of ground gases. The following measurements were recorded at all of the monitoring wells;

- The groundwater level (from ground level); and
- The depth to the base of the monitoring well (from ground level).

The results of the groundwater monitoring are provided in *Appendix C*.

For the collection of groundwater samples, once groundwater levels and monitoring well depths had been recorded, each well was purged of at least three well volumes of standing groundwater, using a portable rotary pump. The sample was then taken using a new plastic, disposable bailer for each well to prevent any cross contamination between wells.

During purging, the following water quality measurements were recorded using purpose-designed instruments, calibrated to the manufacturer's instructions:

- Temperature (°C);
- pH;
- Redox (Eh) (mV);
- Electrical Conductivity (EC) ($\mu\text{S}/\text{cm}$);
- Volatile Organics; and,
- Dissolved Oxygen (DO) (%).

Each parameter was measured until at least three consecutive readings stabilised to within 10% of each other, and once stable conditions were measured, groundwater sampling would commence. The results of the field groundwater quality measurements are presented in *Appendix C*.

In order to undertake the full suite of analysis listed in *Section 3.8.6 to 3.8.8*, over 6 litres of groundwater sample was required.

The sample bottles were filled up to form an inverse meniscus preventing air bubbles forming, minimising the potential loss of volatile gases dissolved in the water. The samples were then placed in laboratory supplied and prepared bottles, labelled at the time of sampling using indelible marker pens and then packed into cool boxes with ice packs.

3.8 Sampling

3.8.1 Soil Sampling

During the site investigation, soil samples considered to be representative of soil conditions were collected from the trial pits, hand pits and boreholes for laboratory analysis. The depth at which soil samples were collected depended upon the analytical program, visual and olfactory field observations and as deemed necessary by the supervising RPS Environmental Consultant. An outline of the sampling strategy is as follows:

- Composite soil samples of the near surface soils were taken for chemical analysis. Each of the samples was representative of the ground conditions encountered and comprised approximately 3kg of material, which was placed into clean airtight polyethylene tubs and amber glass jars as supplied by the laboratory;
- For radiological analysis, three samples for gross alpha/beta analysis were taken between ground level and 0.3mbGL, 0.5-1.0mbGL and 1.0-2.0mbGL in each of the exploratory locations. Samples for tritium analysis were taken at the same time and depth as the first gross alpha/beta sample (ground level to 0.3mbGL) at each of the exploratory locations. Each of the samples were representative of the ground conditions encountered and comprised

approximately 2kg of material, which was placed into clean airtight polyethylene tubs and glass vials as supplied by the laboratory; and

- One composite sample for explosive residue was taken from the top 1m of soil at each of the exploratory locations. Each of the samples were representative of the ground conditions encountered and comprised approximately 0.5kg of material, which was placed into clean airtight glass jars supplied by the laboratory.

Each disturbed soil sample was labelled with a unique reference number together with the project details. Samples were sent to Harwell Scientifics laboratory for radiological analysis, TES Bretby's laboratory for chemical analysis, BAE Systems laboratory for explosive residue analysis.

The soil sample types and depths are presented in the logs in *Appendix B* and the sample codes used on the exploratory logs are provided in *Table 3.2*.

Table 3.2 Summary of Soil Sample Types

Sample Type Code	Sample Type
D	Disturbed soil sample including glass amber jars and plastic tubs for chemical analysis.
E	Disturbed soil sample for radiological analysis.
X	Disturbed soil sample for explosive analysis.
PID	Soil sample PID monitoring.
BULK or B	Bulk soil sample

3.9 Laboratory Analysis

3.9.1 Introduction

Soil and groundwater samples were analysed for various suites of determinants and any soils and groundwater with visual or olfactory evidence of contamination were scheduled for appropriate analysis.

3.9.2 Soil Explosives Suite

Twenty-eight soil samples considered to be representative of ground conditions at the site were submitted to BAE Systems laboratory, for explosive residue analysis as listed in *Table 3.3*.

Table 3.3 Explosive Determinants for Soils

Suite 1	Laboratory Detection Limits
HMX	2.0 mg/kg
RDX	2.0 mg/kg
EDGN	0.1 mg/kg
Tetryl	1.0 mg/kg
HNS	0.5 mg/kg
NG	0.1 mg/kg
TNT	0.5 mg/kg
PETN	5.0 mg/kg
Picrite	0.25 mg/kg
Picric acid	0.1 mg/kg
2,6 DNT	1.0 mg/kg
2,4 DNT	1.0 mg/kg

Results of all explosive residue soil analysis are provided in *Appendix D*.

3.9.3 Radiological Suite For Soils

Seventy-two soil samples considered to be representative of ground conditions at the site were sent to Scientifics laboratory for radiological analysis for the determinants listed in *All samples* were analysed for gross alpha and gross beta determinants, with the provision of limited analysis for radiochemistry, gamma spectrometry and tritium dependent upon the results of the gross alpha and beta analysis.

4. All samples were analysed for gross alpha and gross beta determinants, with the provision of limited analysis for radiochemistry, gamma spectrometry and tritium dependent upon the results of the gross alpha and beta analysis.

Table 3.4 Radiological Determinants

Determinant
<i>All Samples</i>
Gross Alpha
Gross Beta
<i>Additional Analysis</i>
Radiochemistry
Gamma Spectrometry
Tritium

In line with AWE's procedures, if gross alpha activity for a sample was greater than 1.1 Bq/g it was scheduled for further radiochemistry analysis and if gross beta exceeded 1.0 Bq/g the sample was submitted for gamma spectrometry analysis. Five samples were scheduled for radiochemistry analysis and 11 samples were scheduled for gamma spectrometry. A random selection of 15 samples were also analysed for tritium analysis for assurance purposes.

Results of all radiological soil analyses are provided in *Appendix E*.

3.9.4 Soil Chemical Analytical Suites

Soil samples considered to be representative of ground conditions at the site were submitted to UKAS accredited TES Bretby's laboratory, Burton-on-Trent for chemical analysis.

Thirty-one soil samples were scheduled for various chemical contaminant analyses. The soil analysis results are provided in *Appendix F*. A summary of the sampling suite for soil samples is provided in *Table 3.5* below.

Table 3.5 Chemical (Basic Suite) Determinants

Determinant	Laboratory Limits of Detection (LOD) (mg/kg)
Metals – As, Ba, Be, B, Cd, Cr, Cu, Pb, Ni, Se, V & Zn	2 (As), 1 (Ba), 1 (Be), 0.5 (B), 0.1 (Cd), 3 (Cr), 3 (Cu), 3.5 (Pb), 2.5 (Ni), 0.5 (Se), 2.0 (V) & 19.5 (Zn)
Chloride	5
pH	n/a
Acid soluble sulphate	20
Sulphide	0.5
Polyaromatic Hydrocarbons (PAHs) USEPA 17 – Inc Coronene	0.08
Total Petroleum Hydrocarbons (TPH) C5-C40 (Aliphatic/Aromatic split)	10
Fraction Organic Carbon (FOC)	0.02 %
Asbestos Screen	n/a

Two samples from Trial Pit TP8F-012 at depths of 0-0.7mbGI and 1.2mbGL, and one sample from TP8F-009 (0.85m), were sent for additional analysis based on visual and olfactory contamination observed during excavation. The additional analysis is summarised in *Table 3.6* below:

Table 3.6 Chemical Determinants (Additional Analysis)

Determinant	Laboratory Limits of Detection (LOD)
Volatile Organic Compounds (VOCs)	5
Semi-Volatile Organic Compounds (SVOCs)	0.2 - 10
Polychlorinated Biphenyls (PCBs) (TP8F-012 samples only)	5

In addition a sample of suspected asbestos cement from Trial Pit TP8F-015 (0.3 mbGL) was submitted for analysis for the presence of asbestos.

3.9.5 Groundwater Explosives Suite

Fifteen groundwater samples from the newly installed boreholes were submitted to BAE Systems laboratory for explosive residue analysis as listed in *Table 3.7*.

Table 3.7 Explosives Determinants for Groundwater

Determinant	Laboratory Detection Limits
HMX	<50 ug/l
RDX	<50 ug/l
EDGN	<50 ug/l
Tetryl	<50 ug/l
HNS	<50 ug/l
NG	<50 ug/l
TNT	<50 ug/l
PETN	<50 ug/l
Picrite	<50 ug/l
Picric acid	<50 ug/l
2,6 DNT	<50 ug/l
2,4 DNT	<50 ug/l

Results of all explosive residue groundwater analysis are provided in *Appendix G*.

3.9.6 Radiological Suite For Groundwater

Fifteen groundwater samples were submitted to Scientifics laboratory for radiological analysis for the determinants listed in *Table 3.8*. Thirteen samples were scheduled for tritium analysis, and six samples were scheduled for radiochemistry and gamma spectrometry.

Table 3.8 Radiological Determinants for Groundwater

Basic Analysis
Gross Alpha
Gross Beta
Additional Analysis
Radiochemistry
Gamma Spectrometry
Tritium

Results of all radiological groundwater analysis are provided in *Appendix H*.

3.9.7 Chemical Analytical Suites For Groundwater

Fifteen groundwater samples, taken during the three rounds of monitoring, were submitted for analysis for various suites of chemical analytes at TES Bretby's laboratory. The groundwater chemical analysis results are provided in *Appendix I*. A summary of the sampling suites for groundwater samples are provided in *Table 3.9*.

Table 3.9 Chemical Determinants for Groundwater

Determinant	Laboratory Detection Limits (mg/l)
As, B, Ba, Be, Ca, Cd, Cr, Cu, Hg, Mg, Ni, Pb, Se, Zn	0.001, 0.01, 0.01, 0.01, 1, 0.0001, 0.001, 0.001, 0.0001, 1, 0.001, 0.001, 0.001, 0.002
pH	n/a
Total Sulphur	3
Total Hardness	n/a
Ammoniacal Nitrogen	0.01
Nitrate	0.2
Nitrite	0.01
Phosphate	0.01
Total Organic Carbon	0.1
PAH	0.01
TPH	0.01

Four soil samples were submitted for soil leachate analysis to assess the mobility of metal contaminants in the soil. The results of this analysis are included in *Appendix F*.

3.10 QA/QC Sampling Protocols

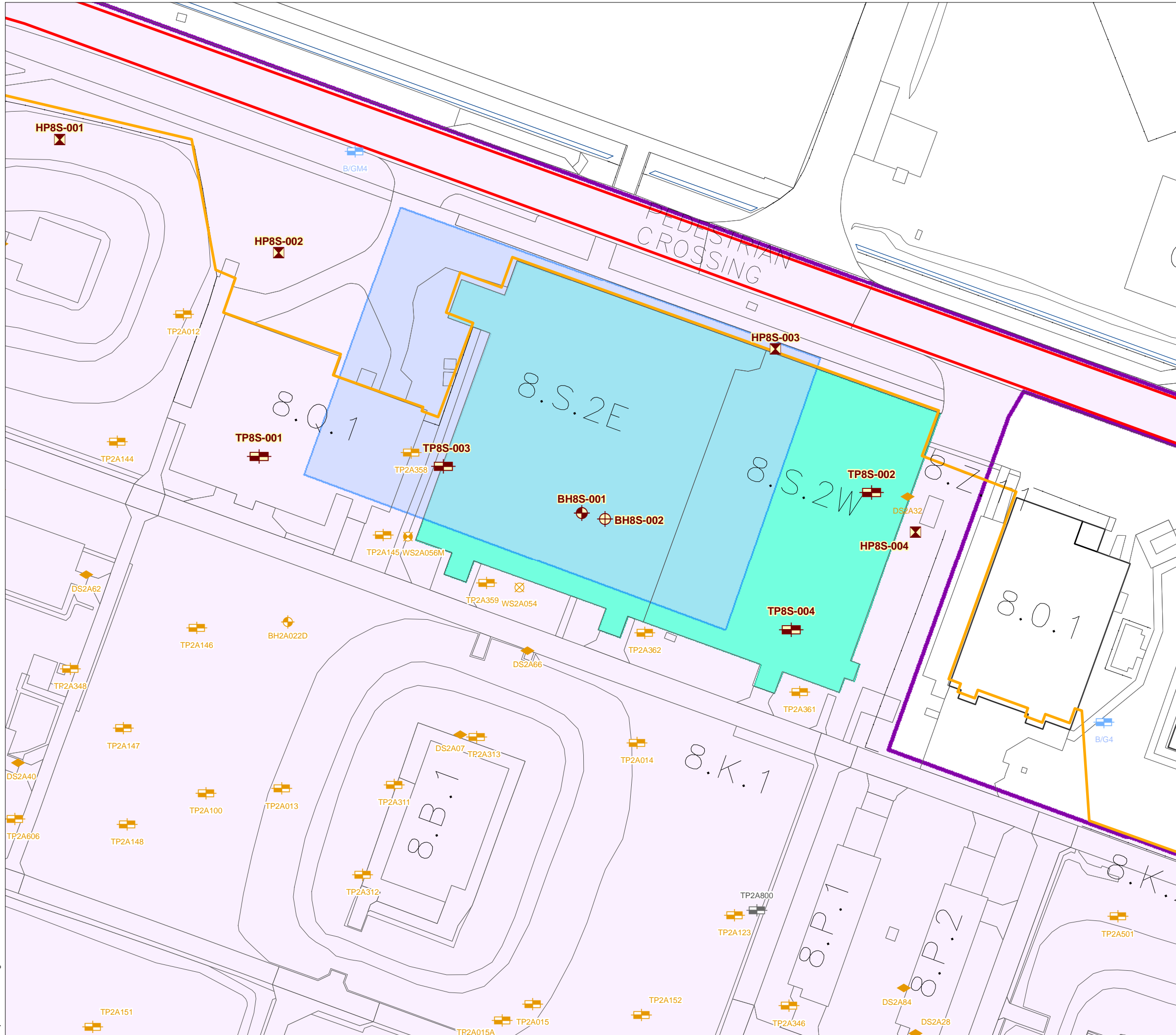
3.10.1 Sampling Storage and Transportation

With the exception of the radiological and geotechnical samples, all samples were stored and transported in cool boxes with ice packs to ensure a nominal temperature of $+ 4^{\circ}\text{C} \pm 2^{\circ}\text{C}$. Samples were delivered to BAE Systems for explosive residue analysis, TES Bretby's laboratory, Burton-upon-Trent, for chemical analysis, and Scientifics Laboratory, Harwell for radiological analysis.

4 References

1. RPS Ground Investigation Proposal – Project Mensa Additional Site Investigation of Land Surrounding Buildings 8S2, 8F2 and 8F3B, AWE Burghfield. RPS Ref. JER3996/MENSA/8S8F/GI/Q1, May 2008;
2. BS10175; Code of Practice for Investigation Potentially Contaminated Sites, 2001;
3. BS5930: Code of Practice for Site Investigations, 1999;
4. BS1377: Methods of Tests for Soils for Civil Engineering Purposes. General Requirements and Sample Preparation, 1990.

Drawings



LEGEND

- Building 8S2E / 8S2W Footprint
- Mensa Application Area
- Proposed Energy Centre
- Phase 2A Demolition Area
- CMR Area

Investigation Locations

- + Borehole with Monitoring Well (Deep)
- o Borehole with Monitoring Well (Shallow)
- Hand Dug Pit
- Trial Pit

Previous Investigation Locations

- Gate 22 Investigation (2006)**
- Trial Pit
- Phase 2A Demolition Area LQA (2005)**
- + Borehole with Monitoring Well (Deep)
 - Probehole
 - Probehole with Monitoring Well
 - Trial Pit
 - Sediment Sample
- Gas Ring Main Investigation (2004)**
- Trial Pit

B	17/09/08	Surveyed Locations, 2008 Basemap	RJ	GM
A	07/08/08	Various Changes (See Original)	RJ	GM
Rev:	Date:	Amendment:	Name:	Checked:

Data Source: RPS 2008
 Status: PRELIMINARY

RPS
 Conrad House Beaufort Square Chepstow Monmouthshire NP16 5EP
 T 01235 838200 F 01235 820351 E rps@rpsgroup.com W www.rpsplc.co.uk

Client: AWE Plc
 Project: Mensa Additional Ground Investigation

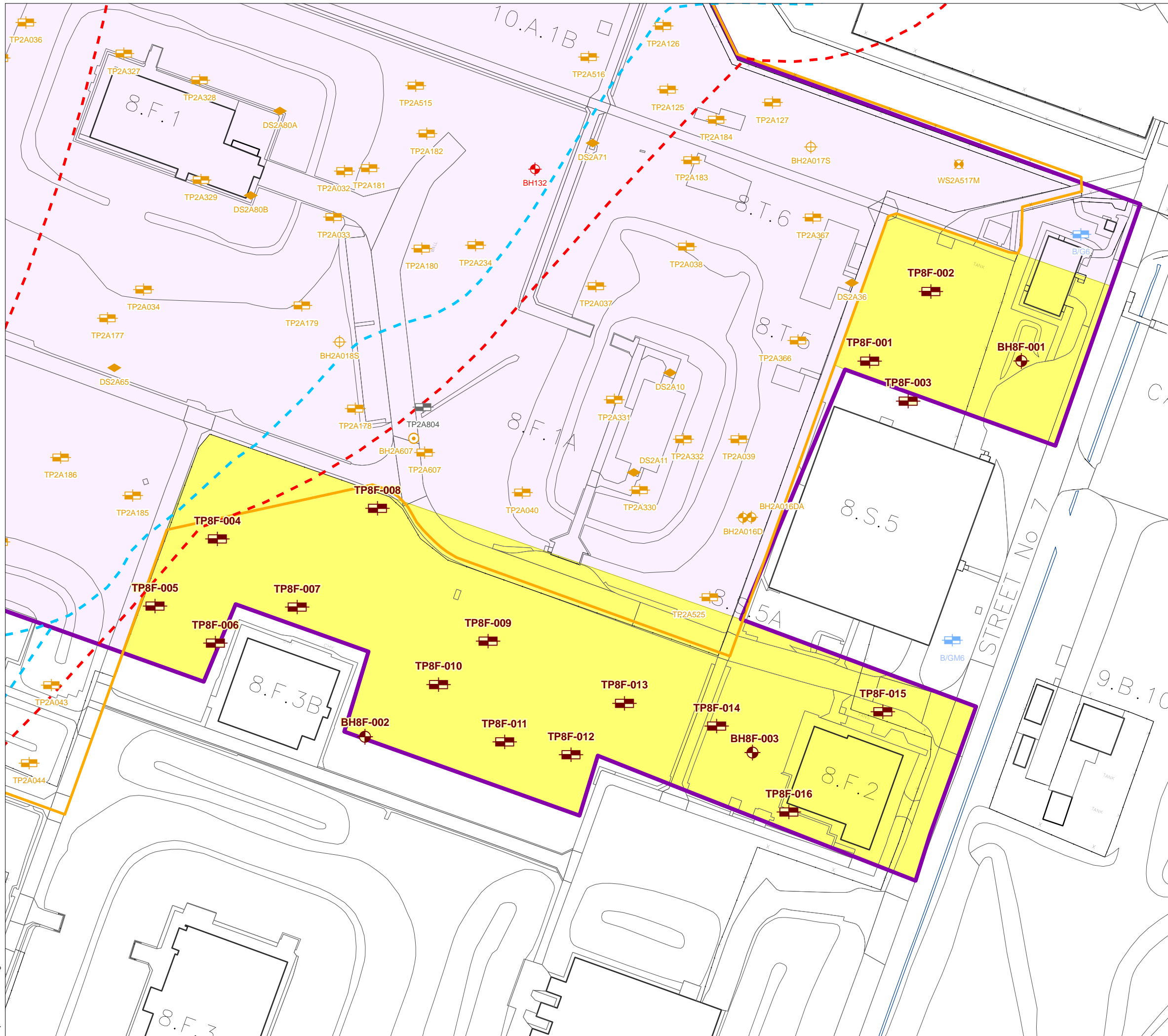
Title: Sampling Locations for Buildings 8S2E & 8S2W

Scale: A3 @ 1:500
 0 0.01 0.02km

Date: 02/05/2005 Datum: OSGB36 Projection: BNG
 Drawn: RJ Checked: SJ Job Ref: JER3996

Figure No: JER3996-8S8F-001b Revision: B

Project Ref: J:\Drawings\JER3996



- LEGEND**
- Buildings 8F2 & 8F3B (Investigation Area Extent)
 - Mensa Application Area
 - Phase 2A Demolition Area
 - Burghfield Brook (Former Course)
 - Approximate Extent of Alluvium Boundary on BGS 1:10,000 Geology Map
- Investigation Locations**
- + Borehole
 - Trial Pit
- Previous Investigation Locations**
- Gate 22 Investigation (2006)**
- Trial Pit
- Phase 2A Demolition Area LQA (2005)**
- + Borehole with Monitoring Well (Deep)
 - + Borehole with Monitoring Well (Shallow)
 - + Probehole with Monitoring Well
 - + Geotechnical Borehole
 - Trial Pit
 - + Sediment Sample
- Gas Ring Main Investigation (2004)**
- Trial Pit
- Initial Characterisation Survey LQA (2003-2004)**
- + Borehole with Monitoring Well
- Burghfield Brook Investigation (2003)**
- + Borehole

B	17/09/08	Surveyed Locations, 2008 Basemap	RJ	GM
A	07/08/08	Various Changes (See Original)	RJ	GM
Rev:	Date:	Amendment:	Name:	Checked:

■ Data Source: RPS 2008
 Status: PRELIMINARY

RPS
 Conrad House Beaufort Square Chepstow Monmouthshire NP16 5EP
 T 01235 838200 F 01235 820351 E rps@rpsgroup.com W www.rpsplc.co.uk

■ Client: AWE Plc
 Project: Mensa Additional Ground Investigation

Title: Sampling Locations for Buildings 8F2 & 8F3B

Scale: A3 @ 1:750
 0 0.015 0.03km N

Date: 02/05/2005 Datum: OSGB36 Projection: BNG
 Drawn: RJ Checked: SJ Job Ref: JER3996

■ Figure No: JER3996-8S8F-002b Revision: B

Project Ref: J:\Drawings\JER3996

Appendices

Appendix A

Operational Radiological Monitoring Results

HEALTH PHYSICS MONITORING FORM FOR BOREHOLES / TRIAL PITS

DATE	27/08/08	BOREHOLE / TRIAL PIT REFERENCE NUMBER		BH8F-001	
INSTRUMENT TYPE	INSTRUMENT MODEL	SERIEL NUMBER	CALIBRATION DATE	BACKGROUND READINGS	
Dose Rate Meter	GR-130	9765	Due 27 th May 2009	42 – 69 cps	
				μSv/hr	
Ratemeter + Probe	Electra	288	Due 10 th June 2009	α (cps)	β (cps)
	DP6	2765	Due 10 th June 2009	0	
					6 – 8

Surface Monitoring	Dose Rate (μSv/hr)	Contamination		
		α (cps)	β (cps)	gamma (cps)
		0	6 – 8	46 – 68

Material Surveyed (Made Ground, Clay etc)	Depth (mbGL)	Dose Rate (μSv/hr)	Contamination		
			α (cps)	β (cps)	gamma (cps)
Spoil	0.5		0	6 – 8	44 – 68
Spoil	1.0		0	6 – 8	51 – 73
Spoil	1.5		0	6 – 8	56 – 80
Spoil	2.0		0	6 – 8	59 – 85
Spoil	2.5		0	6 – 8	48 – 74
Spoil	3.0		0	6 – 8	49 – 81
Spoil	3.5		0	6 – 8	53 – 87
Spoil	4.0		0	6 – 8	55 – 91
Spoil	4.5		0	6 – 8	61 – 104
Spoil	5.0		0	6 – 8	67 – 99
Spoil	5.5		0	6 – 8	65 – 101
Spoil	6.0		0	6 – 8	72 – 106

Ancillary Equipment (drill rig, tools etc)	Dose Rate (μSv/hr)	Contamination	
		α (cps)	β (cps)

DATE		BOREHOLE / TRIAL PIT REFERENCE NUMBER	
-------------	--	--	--

Additional Comments/Actions

All samples recorded at background activity levels

Monitors Name (print)	T. Baker	Monitors Signature	
----------------------------------	----------	-------------------------------	--

**HEALTH PHYSICS MONITORING FORM
FOR BOREHOLES / TRIAL PITS**

DATE	12/08/08	BOREHOLE / TRIAL PIT REFERENCE NUMBER		BH8F-002	
INSTRUMENT TYPE	INSTRUMENT MODEL	SERIEL NUMBER	CALIBRATION DATE	BACKGROUND READINGS	
Dose Rate Meter	GR-130	9765	Due 27th May 2009	71 – 94 cps	
				μSv/hr	
Ratemeter + Probe	Electra	288	Due 10th June 2009	α (cps)	β (cps)
	DP6	2765	Due 10th June 2009	0	5 – 9

Surface Monitoring	Dose Rate (μSv/hr)	Contamination		
		α (cps)	β (cps)	gamma (cps)
		0		

Material Surveyed (Made Ground, Clay etc)	Depth (mbGL)	Dose Rate (μSv/hr)	Contamination		
			α (cps)	β (cps)	gamma (cps)
Spoil	0.6		0	5 – 7	78 – 95
Spoil	1.0		0	5 – 7	64 – 92
Spoil	1.4		0	5 – 8	68 – 89
Spoil	2.0		0	6 – 8	65 – 87
Spoil	2.5		0	5 – 9	71 – 92
Spoil	3.0		0	6 – 9	75 – 94
Spoil	3.5		0	5 – 8	74 – 91
Spoil	4.0		0	5 – 7	72 – 89
Spoil	4.5		0	6 – 8	69 – 86
Spoil	5.0		0	6 – 9	71 – 93
Spoil	5.5		0	6 – 8	74 – 95
Spoil	6.0		0	6 – 8	73 – 91

Ancillary Equipment (drill rig, tools etc)	Dose Rate (μSv/hr)	Contamination	
		α (cps)	β (cps)

DATE		BOREHOLE / TRIAL PIT REFERENCE NUMBER	
-------------	--	--	--

Additional Comments/Actions

All samples recorded at background activity levels

Monitors Name (print)	T. Baker	Monitors Signature	
----------------------------------	----------	-------------------------------	--

**HEALTH PHYSICS MONITORING FORM
FOR BOREHOLES / TRIAL PITS**

DATE	12/08/08	BOREHOLE / TRIAL PIT REFERENCE NUMBER		BH8F-003	
INSTRUMENT TYPE	INSTRUMENT MODEL	SERIEL NUMBER	CALIBRATION DATE	BACKGROUND READINGS	
Dose Rate Meter	GR-130	9765	Due 27th May 2009	70 – 96 cps	
				μSv/hr	
Ratemeter + Probe	Electra	288	Due 10th June 2009	α (cps)	β (cps)
	DP6	2765	Due 10th June 2009	0	5 – 7

Surface Monitoring	Dose Rate (μSv/hr)	Contamination		
		α (cps)	β (cps)	gamma (cps)
		0	5 – 7	71 – 98

Material Surveyed (Made Ground, Clay etc)	Depth (mbGL)	Dose Rate (μSv/hr)	Contamination		
			α (cps)	β (cps)	gamma (cps)
Spoil	0.3		0	5 – 7	69 – 85
Spoil	0.5		0	5 – 8	65 – 86
Spoil	1.0		0	6 – 8	70 – 91
Spoil	1.5		0	5 – 7	68 – 93
Spoil	2.0		0	5 – 7	64 – 87
Spoil	2.5		0	6 – 8	72 – 94
Spoil	3.0		0	5 – 8	69 – 87
Spoil	3.5		0	5 – 9	71 – 92
Spoil	4.0		0	6 – 9	67 – 85
Spoil	4.5		0	5 – 8	65 – 87
Spoil	5.0		0	5 – 9	74 – 93
Spoil	5.5		0	6 – 8	68 – 82
Spoil	6.0		0	6 – 9	75 – 109
Spoil	6.5		0	6 – 9	74 – 106
Spoil	7.0		0	6 – 9	73 – 104
Spoil	7.5		0	6 – 9	69 – 101

Material Surveyed (Made Ground, Clay etc)	Depth (mbGL)	Dose Rate (μ Sv/hr)	Contamination		
			α (cps)	β (cps)	gamma (cps)
Spoil	8.0		0	6 – 9	75 – 103
Spoil	8.5		0	6 – 8	71 – 99
Spoil	9.0		0	5 – 9	73 – 101
Spoil	9.5		0	6 – 9	69 – 98
Spoil	10.0		0	6 – 9	72 – 104
Spoil	11.0		0	6 – 9	77 – 101
Spoil	12.0		0	7 – 9	75 – 98
Spoil	13.0		0	7 – 9	81 – 107
Spoil	14.0		0	7 – 9	79 – 104
Spoil	15.0		0	7 – 9	76 – 99
Spoil	16.0		0	7 – 9	74 – 88
Spoil	17.0		0	7 – 9	76 – 92
Spoil	18.0		0	7 – 9	72 – 95

Ancillary Equipment (drill rig, tools etc)	Dose Rate (μ Sv/hr)	Contamination	
		α (cps)	β (cps)
DATE		BOREHOLE / TRIAL PIT REFERENCE NUMBER	

Additional Comments/Actions

All samples recorded at background activity levels

Monitors Name (print)	T. Baker	Monitors Signature	
----------------------------------	----------	-------------------------------	--

HEALTH PHYSICS MONITORING FORM FOR BOREHOLES / TRIAL PITS

DATE	18/08/08	BOREHOLE / TRIAL PIT REFERENCE NUMBER		BH8S-001	
INSTRUMENT TYPE	INSTRUMENT MODEL	SERIEL NUMBER	CALIBRATION DATE	BACKGROUND READINGS	
Dose Rate Meter	GR-130	9765	Due 27 th May 2009	92 – 109 cps	
				μSv/hr	
Ratemeter + Probe	Electra	288	Due 10 th June 2009	α (cps)	β (cps)
	DP6	2765	Due 10 th June 2009	0	
					6 – 8

Surface Monitoring	Dose Rate (μSv/hr)	Contamination		
		α (cps)	β (cps)	gamma (cps)
		0		

Material Surveyed (Made Ground, Clay etc)	Depth (mbGL)	Dose Rate (μSv/hr)	Contamination		
			α (cps)	β (cps)	gamma (cps)
Clay	0.5		0	6 – 8	91 – 114
Clay	1.0		0	6 – 8	86 – 108
Clay	1.5		0	6 – 8	95 – 125
Clay	2.0		0	6 – 8	89 – 103
Clay	2.5		0	6 – 9	92 – 111
Clay	3.0		0	6 – 8	86 – 105
Clay	3.5		0	6 – 8	82 – 101
Clay	4.0		0	6 – 9	87 – 104
Clay	4.5		0	6 – 9	91 – 112
Clay	5.0		0	6 – 9	83 – 103
Clay	5.5		0	6 – 9	72 – 105
Clay	6.0		0	6 – 9	94 – 109
Clay	7.0		0	6 – 9	86 – 115
Clay	8.0		0	6 – 9	84 – 108
Clay	9.0		0	6 – 9	76 – 110
Clay	10.0		0	6 – 9	92 – 113

Material Surveyed (Made Ground, Clay etc)	Depth (mbGL)	Dose Rate (μ Sv/hr)	Contamination		
			α (cps)	β (cps)	gamma (cps)
Clay	11.0		0	6 – 9	82 – 105
Clay	12.0		0	6 – 9	88 – 108
Clay	13.0		0	6 – 9	79 – 101
Clay	14.0		0	6 – 9	83 – 115
Clay	15.0		0	6 – 9	91 – 107
Clay	16.0		0	6 – 9	87 – 112
Clay	17.0		0	6 – 9	95 – 117
Clay	18.0		0	6 – 9	86 – 109

Ancillary Equipment (drill rig, tools etc)	Dose Rate (μ Sv/hr)	Contamination	
		α (cps)	β (cps)
DATE		BOREHOLE / TRIAL PIT REFERENCE NUMBER	

Additional Comments/Actions

All samples recorded at background activity levels

Monitors Name (print)	T. Baker	Monitors Signature	
----------------------------------	----------	-------------------------------	--

**HEALTH PHYSICS MONITORING FORM
FOR BOREHOLES / TRIAL PITS**

DATE	18/08/08	BOREHOLE / TRIAL PIT REFERENCE NUMBER		BH8S-002	
INSTRUMENT TYPE	INSTRUMENT MODEL	SERIEL NUMBER	CALIBRATION DATE	BACKGROUND READINGS	
Dose Rate Meter	GR-130	9765	Due 27th May 2009	91 – 109 cps	
				μSv/hr	
Ratemeter + Probe	Electra	288	Due 10th June 2009	α (cps)	β (cps)
				0	
	DP6	2765	Due 10th June 2009		8 – 10

Surface Monitoring	Dose Rate (μSv/hr)	Contamination		
		α (cps)	β (cps)	gamma (cps)
		0	8 – 10	90 – 110


Material Surveyed (Made Ground, Clay etc)	Depth (mbGL)	Dose Rate (μSv/hr)	Contamination		
			α (cps)	β (cps)	gamma (cps)
Spoil	1.0		0	8 – 10	93 – 112
Spoil	1.5		0	8 – 10	88 – 109
Spoil	2.0		0	8 – 10	90 – 115
Spoil	2.5		0	8 – 10	94 – 118
Spoil	3.0		0	8 – 10	98 – 121
Spoil	3.5		0	8 – 10	85 – 103
Spoil	4.0		0	8 – 10	91 – 106
Spoil	4.5		0	8 – 10	87 – 99
Spoil	5.0		0	8 – 10	96 – 124
Spoil	5.5		0	8 – 10	92 – 111
Spoil	6.0		0	8 – 10	94 – 118
Spoil	6.5		0	8 – 10	101 – 124

Ancillary Equipment (drill rig, tools etc)	Dose Rate (μSv/hr)	Contamination	
		α (cps)	β (cps)

DATE		BOREHOLE / TRIAL PIT REFERENCE NUMBER	
-------------	--	--	--

<p>Additional Comments/Actions</p> <p>All samples recorded at background activity levels</p>

Monitors Name (print)	T. Baker	Monitors Signature	
----------------------------------	----------	-------------------------------	--

 HEALTH PHYSICS MONITORING FORM FOR BOREHOLES / TRIAL PITS				
DATE	18/08/08	BOREHOLE / TRIAL PIT REFERENCE NUMBER		HP8S-001
INSTRUMENT TYPE	INSTRUMENT MODEL	SERIEL NUMBER	CALIBRATION DATE	BACKGROUND READINGS
Dose Rate Meter	GR-130	9765	Due 27 th May 2009	86 – 101 cps
				μSv/hr
Ratemeter + Probe	Electra	288	Due 10 th June 2009	α (cps) β (cps)
	DP6	2765	Due 10 th June 2009	0 7 – 9

Surface Monitoring	Dose Rate (μSv/hr)	Contamination		
		α (cps)	β (cps)	gamma (cps)
		0	7 – 9	89 – 104

Material Surveyed (Made Ground, Clay etc)	Depth (mbGL)	Dose Rate (μSv/hr)	Contamination		
			α (cps)	β (cps)	gamma (cps)
Clay	0.8		0	7 – 9	78 – 95

Ancillary Equipment (drill rig, tools etc)	Dose Rate (μSv/hr)	Contamination	
		α (cps)	β (cps)

See over

DATE		BOREHOLE / TRIAL PIT REFERENCE NUMBER	
-------------	--	--	--

Additional Comments/Actions

All samples recorded at background activity levels

Monitors Name (print)	T. Baker	Monitors Signature	
----------------------------------	----------	-------------------------------	--



HEALTH PHYSICS MONITORING FORM FOR BOREHOLES / TRIAL PITS

DATE	18/08/08	BOREHOLE / TRIAL PIT REFERENCE NUMBER		HP8S-002	
INSTRUMENT TYPE	INSTRUMENT MODEL	SERIEL NUMBER	CALIBRATION DATE	BACKGROUND READINGS	
Dose Rate Meter	GR-130	9765	Due 27 th May 2009	92 – 114 cps	
				μSv/hr	
Ratemeter + Probe	Electra	288	Due 10 th June 2009	α (cps)	β (cps)
	DP6	2765	Due 10 th June 2009	0	
					7 – 9

Surface Monitoring	Dose Rate (μSv/hr)	Contamination		
		α (cps)	β (cps)	gamma (cps)
		0	7 – 9	95 – 119

Material Surveyed (Made Ground, Clay etc)	Depth (mbGL)	Dose Rate (μSv/hr)	Contamination		
			α (cps)	β (cps)	gamma (cps)
Clay	0.9		0	7 – 9	92 – 115

Ancillary Equipment (drill rig, tools etc)	Dose Rate (μSv/hr)	Contamination	
		α (cps)	β (cps)

See over

DATE		BOREHOLE / TRIAL PIT REFERENCE NUMBER	
-------------	--	--	--

Additional Comments/Actions

All samples recorded at background activity levels

Monitors Name (print)	T. Baker	Monitors Signature	
----------------------------------	----------	-------------------------------	--

RPS**HEALTH PHYSICS MONITORING FORM
FOR BOREHOLES / TRIAL PITS**

DATE	18/08/08	BOREHOLE / TRIAL PIT REFERENCE NUMBER		HP8S-003	
INSTRUMENT TYPE	INSTRUMENT MODEL	SERIEL NUMBER	CALIBRATION DATE	BACKGROUND READINGS	
Dose Rate Meter	GR-130	9765	Due 27th May 2009	86 – 104 cps	
				μSv/hr	
Ratemeter + Probe	Electra	288	Due 10th June 2009	α (cps)	β (cps)
	DP6	2765	Due 10th June 2009	0	7 – 9

Surface Monitoring	Dose Rate (μSv/hr)	Contamination		
		α (cps)	β (cps)	gamma (cps)
		0	7 – 9	84 – 106

Material Surveyed (Made Ground, Clay etc)	Depth (mbGL)	Dose Rate (μSv/hr)	Contamination		
			α (cps)	β (cps)	gamma (cps)
Clay	0.8		0	7 – 9	89 – 114

Ancillary Equipment (drill rig, tools etc)	Dose Rate (μSv/hr)	Contamination	
		α (cps)	β (cps)

See over

DATE		BOREHOLE / TRIAL PIT REFERENCE NUMBER	
-------------	--	--	--

Additional Comments/Actions

All samples recorded at background activity levels

Monitors Name (print)	T. Baker	Monitors Signature	
----------------------------------	----------	-------------------------------	--

HEALTH PHYSICS MONITORING FORM FOR BOREHOLES / TRIAL PITS

DATE	14/08/08	BOREHOLE / TRIAL PIT REFERENCE NUMBER		TP8F-001	
INSTRUMENT TYPE	INSTRUMENT MODEL	SERIEL NUMBER	CALIBRATION DATE	BACKGROUND READINGS	
Dose Rate Meter	GR-130	9765	Due 27 th May 2009	70 – 92 cps	
				μSv/hr	
Ratemeter + Probe	Electra	288	Due 10 th June 2009	α (cps)	β (cps)
				0	
	DP6	2765	Due 10 th June 2009		6 – 8

Surface Monitoring	Dose Rate (μSv/hr)	Contamination		
		α (cps)	β (cps)	gamma (cps)
		0	6 – 8	68 – 90

Material Surveyed (Made Ground, Clay etc)	Depth (mbGL)	Dose Rate (μSv/hr)	Contamination		
			α (cps)	β (cps)	gamma (cps)
Clay	0.5		0	6 – 8	71 – 92
Clay	1.1		0	6 – 8	76 – 109
Clay	2.8		0	6 – 9	87 – 108

Ancillary Equipment (drill rig, tools etc)	Dose Rate (μSv/hr)	Contamination	
		α (cps)	β (cps)

See over

DATE		BOREHOLE / TRIAL PIT REFERENCE NUMBER	
-------------	--	--	--

Additional Comments/Actions

All samples recorded at background activity levels

Monitors Name (print)	T. Baker	Monitors Signature	
----------------------------------	----------	-------------------------------	--

HEALTH PHYSICS MONITORING FORM FOR BOREHOLES / TRIAL PITS

DATE	14/08/08	BOREHOLE / TRIAL PIT REFERENCE NUMBER		TP8F-002	
INSTRUMENT TYPE	INSTRUMENT MODEL	SERIEL NUMBER	CALIBRATION DATE	BACKGROUND READINGS	
Dose Rate Meter	GR-130	9765	Due 27 th May 2009	70 – 95 cps	
				μSv/hr	
Ratemeter + Probe	Electra	288	Due 10 th June 2009	α (cps)	β (cps)
				0	
	DP6	2765	Due 10 th June 2009		6 – 8

Surface Monitoring	Dose Rate (μSv/hr)	Contamination		
		α (cps)	β (cps)	gamma (cps)
		0	6 – 8	68 – 92

Material Surveyed (Made Ground, Clay etc)	Depth (mbGL)	Dose Rate (μSv/hr)	Contamination		
			α (cps)	β (cps)	gamma (cps)
Soil & Clay	0.3		0	6 – 8	71 – 91
Clay	0.6		0	6 – 8	69 – 89
Clay	1.8		0	7 – 9	86 – 126
Clay	3.0		0	7 – 9	92 – 123

Ancillary Equipment (drill rig, tools etc)	Dose Rate (μSv/hr)	Contamination	
		α (cps)	β (cps)

See over

DATE		BOREHOLE / TRIAL PIT REFERENCE NUMBER	
-------------	--	--	--

Additional Comments/Actions

All samples recorded at background activity levels

Monitors Name (print)	T. Baker	Monitors Signature	
----------------------------------	----------	-------------------------------	--

**HEALTH PHYSICS MONITORING FORM
FOR BOREHOLES / TRIAL PITS**

DATE	14/08/08	BOREHOLE / TRIAL PIT REFERENCE NUMBER		TP8F-003
INSTRUMENT TYPE	INSTRUMENT MODEL	SERIEL NUMBER	CALIBRATION DATE	BACKGROUND READINGS
Dose Rate Meter	GR-130	9765	Due 27 th May 2009	76 – 95 cps
				μSv/hr
Ratemeter + Probe	Electra	288	Due 10 th June 2009	α (cps) β (cps)
	DP6	2765	Due 10 th June 2009	0 7 – 9

Surface Monitoring	Dose Rate (μSv/hr)	Contamination		
		α (cps)	β (cps)	gamma (cps)
		0	7 – 9	75 – 98

Material Surveyed (Made Ground, Clay etc)	Depth (mbGL)	Dose Rate (μSv/hr)	Contamination		
			α (cps)	β (cps)	gamma (cps)
Clay	0.3		0	7 – 9	72 – 96
Clay	0.5		0	7 – 9	78 – 99
Clay	1.15		0	7 – 9	83 – 106
Clay	2.9		0	7 – 9	91 – 118

Ancillary Equipment (drill rig, tools etc)	Dose Rate (μSv/hr)	Contamination	
		α (cps)	β (cps)

See over

DATE		BOREHOLE / TRIAL PIT REFERENCE NUMBER	
-------------	--	--	--

Additional Comments/Actions

All samples recorded at background activity levels

Monitors Name (print)	T. Baker	Monitors Signature	
----------------------------------	----------	-------------------------------	--

HEALTH PHYSICS MONITORING FORM FOR BOREHOLES / TRIAL PITS

DATE	13/08/08	BOREHOLE / TRIAL PIT REFERENCE NUMBER		TP8F-004
INSTRUMENT TYPE	INSTRUMENT MODEL	SERIEL NUMBER	CALIBRATION DATE	BACKGROUND READINGS
Dose Rate Meter	GR-130	9765	Due 27 th May 2009	69 – 91 cps
				μSv/hr
Ratemeter + Probe	Electra	288	Due 10 th June 2009	α (cps) β (cps)
	DP6	2765	Due 10 th June 2009	0 5 – 7

Surface Monitoring	Dose Rate (μSv/hr)	Contamination		
		α (cps)	β (cps)	gamma (cps)
		0	5 – 7	66 – 83

Material Surveyed (Made Ground, Clay etc)	Depth (mbGL)	Dose Rate (μSv/hr)	Contamination		
			α (cps)	β (cps)	gamma (cps)
Soil	0.5		0	5 – 7	71 – 84
Clay	1.2		0	6 – 8	74 – 80

Ancillary Equipment (drill rig, tools etc)	Dose Rate (μSv/hr)	Contamination	
		α (cps)	β (cps)

See over

DATE		BOREHOLE / TRIAL PIT REFERENCE NUMBER	
-------------	--	--	--

Additional Comments/Actions

All samples recorded at background activity levels

Monitors Name (print)	T. Baker	Monitors Signature	
----------------------------------	----------	-------------------------------	--

HEALTH PHYSICS MONITORING FORM FOR BOREHOLES / TRIAL PITS

DATE	12/08/08	BOREHOLE / TRIAL PIT REFERENCE NUMBER		TP8F-005	
INSTRUMENT TYPE	INSTRUMENT MODEL	SERIEL NUMBER	CALIBRATION DATE	BACKGROUND READINGS	
Dose Rate Meter	GR-130	9765	Due 27 th May 2009	71 – 92 cps	
				μSv/hr	
Ratemeter + Probe	Electra	288	Due 10 th June 2009	α (cps)	β (cps)
	DP6	2765	Due 10 th June 2009	0	
					6 – 9

Surface Monitoring	Dose Rate (μSv/hr)	Contamination		
		α (cps)	β (cps)	gamma (cps)
		0	5 – 8	69 – 98

Material Surveyed (Made Ground, Clay etc)	Depth (mbGL)	Dose Rate (μSv/hr)	Contamination		
			α (cps)	β (cps)	gamma (cps)
Clay	1.0		0	5 – 8	67 – 97
Clay	1.5		0	6 – 9	63 – 91
Clay	2.4		0	6 – 9	73 – 96
Clay	3.0		0	6 – 9	78 – 105


Ancillary Equipment (drill rig, tools etc)	Dose Rate (μSv/hr)	Contamination	
		α (cps)	β (cps)

See over

DATE		BOREHOLE / TRIAL PIT REFERENCE NUMBER	
-------------	--	--	--

<p>Additional Comments/Actions</p> <p>All samples recorded at background activity levels</p>

Monitors Name (print)	T. Baker	Monitors Signature	
----------------------------------	----------	-------------------------------	--

 HEALTH PHYSICS MONITORING FORM FOR BOREHOLES / TRIAL PITS				
DATE	12/08/08	BOREHOLE / TRIAL PIT REFERENCE NUMBER		TP8F-006
INSTRUMENT TYPE	INSTRUMENT MODEL	SERIEL NUMBER	CALIBRATION DATE	BACKGROUND READINGS
Dose Rate Meter	GR-130	9765	Due 27 th May 2009	79 – 108 cps
				μSv/hr
Ratemeter + Probe	Electra	288	Due 10 th June 2009	α (cps) β (cps)
	DP6	2765	Due 10 th June 2009	0 5 – 7

Surface Monitoring	Dose Rate (μSv/hr)	Contamination		
		α (cps)	β (cps)	gamma (cps)
		0	5 – 7	75 – 110

Material Surveyed (Made Ground, Clay etc)	Depth (mbGL)	Dose Rate (μSv/hr)	Contamination		
			α (cps)	β (cps)	gamma (cps)
Clay	0.3		0	5 – 7	78 – 106
Clay	0.6		0	5 – 8	98 – 141
Clay	0.9		0	6 – 9	81 – 101
Clay	1.4		0	6 – 8	79 – 112
Clay	1.8		0	5 – 8	82 – 104
Blue clay	2.4		0	7 – 10	87 – 159
Blue clay	3.2		0	7 – 10	86 – 144

Ancillary Equipment (drill rig, tools etc)	Dose Rate (μSv/hr)	Contamination	
		α (cps)	β (cps)

See over

DATE		BOREHOLE / TRIAL PIT REFERENCE NUMBER	
-------------	--	--	--

Additional Comments/Actions

All samples recorded at background activity levels

Monitors Name (print)	T. Baker	Monitors Signature	
----------------------------------	----------	-------------------------------	--

**HEALTH PHYSICS MONITORING FORM
FOR BOREHOLES / TRIAL PITS**

DATE	13/08/08	BOREHOLE / TRIAL PIT REFERENCE NUMBER		TP8F-007	
INSTRUMENT TYPE	INSTRUMENT MODEL	SERIEL NUMBER	CALIBRATION DATE	BACKGROUND READINGS	
Dose Rate Meter	GR-130	9765	Due 27th May 2009	72 – 99 cps	
				μSv/hr	
Ratemeter + Probe	Electra	288	Due 10th June 2009	α (cps)	β (cps)
	DP6	2765	Due 10th June 2009	0	5 – 8

Surface Monitoring	Dose Rate (μSv/hr)	Contamination		
		α (cps)	β (cps)	gamma (cps)
		0	5 – 8	74 – 101

Material Surveyed (Made Ground, Clay etc)	Depth (mbGL)	Dose Rate (μSv/hr)	Contamination		
			α (cps)	β (cps)	gamma (cps)
Spoil and Clay	0.5		0	5 – 8	76 – 103
Clay	0.9		0	6 – 9	78 – 101
Clay	1.9		0	6 – 9	75 – 109
Clay	3.4		0	6 – 9	76 – 111

Ancillary Equipment (drill rig, tools etc)	Dose Rate (μSv/hr)	Contamination	
		α (cps)	β (cps)

See over

DATE		BOREHOLE / TRIAL PIT REFERENCE NUMBER	
-------------	--	--	--

Additional Comments/Actions

All samples recorded at background activity levels

Monitors Name (print)	T. Baker	Monitors Signature	
----------------------------------	----------	-------------------------------	--

HEALTH PHYSICS MONITORING FORM FOR BOREHOLES / TRIAL PITS

DATE	14/08/08	BOREHOLE / TRIAL PIT REFERENCE NUMBER		TP8F-008	
INSTRUMENT TYPE	INSTRUMENT MODEL	SERIEL NUMBER	CALIBRATION DATE	BACKGROUND READINGS	
Dose Rate Meter	GR-130	9765	Due 27 th May 2009	68 – 95 cps	
				μSv/hr	
Ratemeter + Probe	Electra	288	Due 10 th June 2009	α (cps)	β (cps)
				0	
	DP6	2765	Due 10 th June 2009		6 – 8

Surface Monitoring	Dose Rate (μSv/hr)	Contamination		
		α (cps)	β (cps)	gamma (cps)
		0	6 – 8	69 – 98

Material Surveyed (Made Ground, Clay etc)	Depth (mbGL)	Dose Rate (μSv/hr)	Contamination		
			α (cps)	β (cps)	gamma (cps)
Soil	0.5		0	6 – 8	65 – 88
Clay	1.0		0	6 – 8	68 – 79
Clay	1.7		0	6 – 8	73 – 104
Clay	2.4		0	6 – 9	81 – 110

Ancillary Equipment (drill rig, tools etc)	Dose Rate (μSv/hr)	Contamination	
		α (cps)	β (cps)

See over

DATE		BOREHOLE / TRIAL PIT REFERENCE NUMBER	
-------------	--	--	--

Additional Comments/Actions

All samples recorded at background activity levels

Monitors Name (print)	T. Baker	Monitors Signature	
----------------------------------	----------	-------------------------------	--

HEALTH PHYSICS MONITORING FORM FOR BOREHOLES / TRIAL PITS

DATE	14/08/08	BOREHOLE / TRIAL PIT REFERENCE NUMBER		TP8F-009
INSTRUMENT TYPE	INSTRUMENT MODEL	SERIEL NUMBER	CALIBRATION DATE	BACKGROUND READINGS
Dose Rate Meter	GR-130	9765	Due 27 th May 2009	68 – 100 cps
				μSv/hr
Ratemeter + Probe	Electra	288	Due 10 th June 2009	α (cps) β (cps)
	DP6	2765	Due 10 th June 2009	0 6 – 8

Surface Monitoring	Dose Rate (μSv/hr)	Contamination		
		α (cps)	β (cps)	gamma (cps)
		0	6 – 8	71 – 98

Material Surveyed (Made Ground, Clay etc)	Depth (mbGL)	Dose Rate (μSv/hr)	Contamination		
			α (cps)	β (cps)	gamma (cps)
Clay	0.3		0	6 – 8	69 – 99
Clay	1.0		0	6 – 8	78 – 104
Clay	2.7		0	7 – 9	84 – 127

Ancillary Equipment (drill rig, tools etc)	Dose Rate (μSv/hr)	Contamination	
		α (cps)	β (cps)

See over

DATE		BOREHOLE / TRIAL PIT REFERENCE NUMBER	
-------------	--	--	--

Additional Comments/Actions

All samples recorded at background activity levels

Monitors Name (print)	T. Baker	Monitors Signature	
----------------------------------	----------	-------------------------------	--

HEALTH PHYSICS MONITORING FORM FOR BOREHOLES / TRIAL PITS

DATE	13/08/08	BOREHOLE / TRIAL PIT REFERENCE NUMBER		TP8F-010	
INSTRUMENT TYPE	INSTRUMENT MODEL	SERIEL NUMBER	CALIBRATION DATE	BACKGROUND READINGS	
Dose Rate Meter	GR-130	9765	Due 27 th May 2009	65 – 94 cps	
				μSv/hr	
Ratemeter + Probe	Electra	288	Due 10 th June 2009	α (cps)	β (cps)
	DP6	2765	Due 10 th June 2009	0	
					5 – 8

Surface Monitoring	Dose Rate (μSv/hr)	Contamination		
		α (cps)	β (cps)	gamma (cps)
		0	5 – 8	68 – 93

Material Surveyed (Made Ground, Clay etc)	Depth (mbGL)	Dose Rate (μSv/hr)	Contamination		
			α (cps)	β (cps)	gamma (cps)
Brick rubble	0.5		0	5 – 8	71 – 95
Clay	1.0		0	5 – 8	69 – 92
Clay	1.5		0	5 – 8	72 – 108
Clay	3.5		0	5 – 8	76 – 124

Ancillary Equipment (drill rig, tools etc)	Dose Rate (μSv/hr)	Contamination	
		α (cps)	β (cps)

See over

DATE		BOREHOLE / TRIAL PIT REFERENCE NUMBER	
-------------	--	--	--

Additional Comments/Actions

All samples recorded at background activity levels

Monitors Name (print)	T. Baker	Monitors Signature	
----------------------------------	----------	-------------------------------	--

**HEALTH PHYSICS MONITORING FORM
FOR BOREHOLES / TRIAL PITS**

DATE	13/08/08	BOREHOLE / TRIAL PIT REFERENCE NUMBER		TP8F-011	
INSTRUMENT TYPE	INSTRUMENT MODEL	SERIEL NUMBER	CALIBRATION DATE	BACKGROUND READINGS	
Dose Rate Meter	GR-130	9765	Due 27th May 2009	68 – 85 cps	
				μSv/hr	
Ratemeter + Probe	Electra	288	Due 10th June 2009	α (cps)	β (cps)
	DP6	2765	Due 10th June 2009	0	6 – 8

Surface Monitoring	Dose Rate (μSv/hr)	Contamination		
		α (cps)	β (cps)	gamma (cps)
		0	6 – 8	65 – 83

Material Surveyed (Made Ground, Clay etc)	Depth (mbGL)	Dose Rate (μSv/hr)	Contamination		
			α (cps)	β (cps)	gamma (cps)
Soil and Clay	0.3		0	6 – 8	67 – 85
Clay	1.0		0	7 – 9	71 – 102
Clay	2.6		0	7 – 9	82 – 126
Clay	3.3		0	7 – 9	80 – 121

Ancillary Equipment (drill rig, tools etc)	Dose Rate (μSv/hr)	Contamination	
		α (cps)	β (cps)

See over

DATE		BOREHOLE / TRIAL PIT REFERENCE NUMBER	
-------------	--	--	--

Additional Comments/Actions

All samples recorded at background activity levels

Monitors Name (print)	T. Baker	Monitors Signature	
----------------------------------	----------	-------------------------------	--



HEALTH PHYSICS MONITORING FORM FOR BOREHOLES / TRIAL PITS

DATE	13/08/08	BOREHOLE / TRIAL PIT REFERENCE NUMBER		TP8F-012	
INSTRUMENT TYPE	INSTRUMENT MODEL	SERIEL NUMBER	CALIBRATION DATE	BACKGROUND READINGS	
Dose Rate Meter	GR-130	9765	Due 27 th May 2009	68 – 88 cps	
				μSv/hr	
Ratemeter + Probe	Electra	288	Due 10 th June 2009	α (cps)	β (cps)
	DP6	2765	Due 10 th June 2009	0	
					6 – 8

Surface Monitoring	Dose Rate (μSv/hr)	Contamination		
		α (cps)	β (cps)	gamma (cps)
		0	6 – 8	69 – 87

Material Surveyed (Made Ground, Clay etc)	Depth (mbGL)	Dose Rate (μSv/hr)	Contamination		
			α (cps)	β (cps)	gamma (cps)
Clay	0.5		0	6 – 8	65 – 86
Clay	2.5		0	6 – 8	74 – 101

Ancillary Equipment (drill rig, tools etc)	Dose Rate (μSv/hr)	Contamination	
		α (cps)	β (cps)

See over

DATE		BOREHOLE / TRIAL PIT REFERENCE NUMBER	
-------------	--	--	--

Additional Comments/Actions

All samples recorded at background activity levels

Monitors Name (print)	T. Baker	Monitors Signature	
----------------------------------	----------	-------------------------------	--

**HEALTH PHYSICS MONITORING FORM
FOR BOREHOLES / TRIAL PITS**

DATE	14/08/08	BOREHOLE / TRIAL PIT REFERENCE NUMBER		TP8F-013
INSTRUMENT TYPE	INSTRUMENT MODEL	SERIEL NUMBER	CALIBRATION DATE	BACKGROUND READINGS
Dose Rate Meter	GR-130	9765	Due 27 th May 2009	68 – 99 cps
				μSv/hr
Ratemeter + Probe	Electra	288	Due 10 th June 2009	α (cps) β (cps)
	DP6	2765	Due 10 th June 2009	0 6 – 8

Surface Monitoring	Dose Rate (μSv/hr)	Contamination		
		α (cps)	β (cps)	gamma (cps)
		0	6 – 8	70 – 98

Material Surveyed (Made Ground, Clay etc)	Depth (mbGL)	Dose Rate (μSv/hr)	Contamination		
			α (cps)	β (cps)	gamma (cps)
Brick and Clay	0.5		0	6 – 8	74 – 106
Clay	1.1		0	6 – 8	68 – 95
Clay	2.5		0	7 – 9	86 – 130

Ancillary Equipment (drill rig, tools etc)	Dose Rate (μSv/hr)	Contamination	
		α (cps)	β (cps)

See over

DATE		BOREHOLE / TRIAL PIT REFERENCE NUMBER	
-------------	--	--	--

Additional Comments/Actions

All samples recorded at background activity levels

Monitors Name (print)	T. Baker	Monitors Signature	
----------------------------------	----------	-------------------------------	--

HEALTH PHYSICS MONITORING FORM FOR BOREHOLES / TRIAL PITS

DATE	15/08/08	BOREHOLE / TRIAL PIT REFERENCE NUMBER		TP8F-014	
INSTRUMENT TYPE	INSTRUMENT MODEL	SERIEL NUMBER	CALIBRATION DATE	BACKGROUND READINGS	
Dose Rate Meter	GR-130	9765	Due 27 th May 2009	69 – 91 cps	
				μSv/hr	
Ratemeter + Probe	Electra	288	Due 10 th June 2009	α (cps)	β (cps)
				0	
	DP6	2765	Due 10 th June 2009		6 – 8

Surface Monitoring	Dose Rate (μSv/hr)	Contamination		
		α (cps)	β (cps)	gamma (cps)
		0	6 – 8	69 – 91

Material Surveyed (Made Ground, Clay etc)	Depth (mbGL)	Dose Rate (μSv/hr)	Contamination		
			α (cps)	β (cps)	gamma (cps)
Soil	0.2		0	6 – 8	67 – 85
Clay	0.8		0	6 – 8	73 – 95
Clay	1.2		0	6 – 9	84 – 112
Clay	2.6		0	6 – 9	89 – 120

Ancillary Equipment (drill rig, tools etc)	Dose Rate (μSv/hr)	Contamination	
		α (cps)	β (cps)

See over

DATE		BOREHOLE / TRIAL PIT REFERENCE NUMBER	
-------------	--	--	--

Additional Comments/Actions

All samples recorded at background activity levels

Monitors Name (print)	T. Baker	Monitors Signature	
----------------------------------	----------	-------------------------------	--

HEALTH PHYSICS MONITORING FORM FOR BOREHOLES / TRIAL PITS

DATE	20/08/08	BOREHOLE / TRIAL PIT REFERENCE NUMBER		TP8F-015	
INSTRUMENT TYPE	INSTRUMENT MODEL	SERIEL NUMBER	CALIBRATION DATE	BACKGROUND READINGS	
Dose Rate Meter	GR-130	9765	Due 27 th May 2009	62 – 85 cps	
				μSv/hr	
Ratemeter + Probe	Electra	288	Due 10 th June 2009	α (cps)	β (cps)
	DP6	2765	Due 10 th June 2009	0	
					6 – 8

Surface Monitoring	Dose Rate (μSv/hr)	Contamination		
		α (cps)	β (cps)	gamma (cps)
		0	6 – 8	64 – 87

Material Surveyed (Made Ground, Clay etc)	Depth (mbGL)	Dose Rate (μSv/hr)	Contamination		
			α (cps)	β (cps)	gamma (cps)
Spoil	0.9		0	6 – 8	66 – 93
Spoil	2.2		0	7 – 9	75 – 112

Ancillary Equipment (drill rig, tools etc)	Dose Rate (μSv/hr)	Contamination	
		α (cps)	β (cps)

See over

DATE		BOREHOLE / TRIAL PIT REFERENCE NUMBER	
-------------	--	--	--

Additional Comments/Actions

All samples recorded at background activity levels

Monitors Name (print)	T. Baker	Monitors Signature	
----------------------------------	----------	-------------------------------	--



HEALTH PHYSICS MONITORING FORM FOR BOREHOLES / TRIAL PITS

DATE	12/08/08	BOREHOLE / TRIAL PIT REFERENCE NUMBER		TP8F-016	
INSTRUMENT TYPE	INSTRUMENT MODEL	SERIEL NUMBER	CALIBRATION DATE	BACKGROUND READINGS	
Dose Rate Meter	GR-130	9765	Due 27 th May 2009	68 – 91 cps	
				μSv/hr	
Ratemeter + Probe	Electra	288	Due 10 th June 2009	α (cps)	β (cps)
	DP6	2765	Due 10 th June 2009	0	
					5 – 7

Surface Monitoring	Dose Rate (μSv/hr)	Contamination		
		α (cps)	β (cps)	gamma (cps)
		0	5 – 7	66 – 90

Material Surveyed (Made Ground, Clay etc)	Depth (mbGL)	Dose Rate (μSv/hr)	Contamination		
			α (cps)	β (cps)	gamma (cps)
Clay	1.2		0	5 – 7	70 – 86

Ancillary Equipment (drill rig, tools etc)	Dose Rate (μSv/hr)	Contamination	
		α (cps)	β (cps)

See over

DATE		BOREHOLE / TRIAL PIT REFERENCE NUMBER	
-------------	--	--	--

Additional Comments/Actions

All samples recorded at background activity levels

Monitors Name (print)	T. Baker	Monitors Signature	
----------------------------------	----------	-------------------------------	--

HEALTH PHYSICS MONITORING FORM FOR BOREHOLES / TRIAL PITS

DATE	15/08/08	BOREHOLE / TRIAL PIT REFERENCE NUMBER		TP8F-017	
INSTRUMENT TYPE	INSTRUMENT MODEL	SERIEL NUMBER	CALIBRATION DATE	BACKGROUND READINGS	
Dose Rate Meter	GR-130	9765	Due 27 th May 2009	93 – 116 cps	
				μSv/hr	
Ratemeter + Probe	Electra	288	Due 10 th June 2009	α (cps)	β (cps)
				0	
	DP6	2765	Due 10 th June 2009		7 – 9

Surface Monitoring	Dose Rate (μSv/hr)	Contamination		
		α (cps)	β (cps)	gamma (cps)
		0	7 – 9	91 – 106

Material Surveyed (Made Ground, Clay etc)	Depth (mbGL)	Dose Rate (μSv/hr)	Contamination		
			α (cps)	β (cps)	gamma (cps)
Clay	0.4		0	7 – 9	99 – 128
Clay	0.9		0	7 – 9	95 – 131
Clay	2.5		0	7 – 9	96 – 133
Clay	3.0		0	7 – 9	98 – 146

Ancillary Equipment (drill rig, tools etc)	Dose Rate (μSv/hr)	Contamination	
		α (cps)	β (cps)

See over

DATE		BOREHOLE / TRIAL PIT REFERENCE NUMBER	
-------------	--	--	--

Additional Comments/Actions

All samples recorded at background activity levels

Monitors Name (print)	T. Baker	Monitors Signature	
----------------------------------	----------	-------------------------------	--



HEALTH PHYSICS MONITORING FORM FOR BOREHOLES / TRIAL PITS

DATE	18/08/08	BOREHOLE / TRIAL PIT REFERENCE NUMBER		TP8S-001
INSTRUMENT TYPE	INSTRUMENT MODEL	SERIEL NUMBER	CALIBRATION DATE	BACKGROUND READINGS
Dose Rate Meter	GR-130	9765	Due 27 th May 2009	86 – 119 cps
				μSv/hr
Ratemeter + Probe	Electra	288	Due 10 th June 2009	α (cps) β (cps)
	DP6	2765	Due 10 th June 2009	0 8 – 10

Surface Monitoring	Dose Rate (μSv/hr)	Contamination		
		α (cps)	β (cps)	gamma (cps)
		0	8 – 10	88 – 121

Material Surveyed (Made Ground, Clay etc)	Depth (mbGL)	Dose Rate (μSv/hr)	Contamination		
			α (cps)	β (cps)	gamma (cps)
Clay	0.9		0	8 – 10	91 – 125
Clay	1.1		0	8 – 10	92 – 131
Clay	1.85		0	8 – 10	98 – 127
Clay	3.0		0	8 – 10	103 – 131

Ancillary Equipment (drill rig, tools etc)	Dose Rate (μSv/hr)	Contamination	
		α (cps)	β (cps)

See over

DATE		BOREHOLE / TRIAL PIT REFERENCE NUMBER	
-------------	--	--	--

Additional Comments/Actions

All samples recorded at background activity levels

Monitors Name (print)	T. Baker	Monitors Signature	
----------------------------------	----------	-------------------------------	--

HEALTH PHYSICS MONITORING FORM FOR BOREHOLES / TRIAL PITS

DATE	18/08/08	BOREHOLE / TRIAL PIT REFERENCE NUMBER		TP8S-002
INSTRUMENT TYPE	INSTRUMENT MODEL	SERIEL NUMBER	CALIBRATION DATE	BACKGROUND READINGS
Dose Rate Meter	GR-130	9765	Due 27 th May 2009	92 – 106 cps
				μSv/hr
Ratemeter + Probe	Electra	288	Due 10 th June 2009	α (cps) β (cps)
	DP6	2765	Due 10 th June 2009	0 8 – 10

Surface Monitoring	Dose Rate (μSv/hr)	Contamination		
		α (cps)	β (cps)	gamma (cps)
		0	8 – 10	90 – 105

Material Surveyed (Made Ground, Clay etc)	Depth (mbGL)	Dose Rate (μSv/hr)	Contamination		
			α (cps)	β (cps)	gamma (cps)
Clay	0.0 – 0.9		0	8 – 10	89 – 114
Clay	1.0		0	8 – 10	88 – 110
Clay	3.0		0	8 – 10	94 – 126

Ancillary Equipment (drill rig, tools etc)	Dose Rate (μSv/hr)	Contamination	
		α (cps)	β (cps)

See over

DATE		BOREHOLE / TRIAL PIT REFERENCE NUMBER	
-------------	--	--	--

Additional Comments/Actions

All samples recorded at background activity levels

Monitors Name (print)	T. Baker	Monitors Signature	
----------------------------------	----------	-------------------------------	--

HEALTH PHYSICS MONITORING FORM FOR BOREHOLES / TRIAL PITS

DATE	18/08/08	BOREHOLE / TRIAL PIT REFERENCE NUMBER		TP8S-003	
INSTRUMENT TYPE	INSTRUMENT MODEL	SERIEL NUMBER	CALIBRATION DATE	BACKGROUND READINGS	
Dose Rate Meter	GR-130	9765	Due 27 th May 2009	95 – 118 cps	
				μSv/hr	
Ratemeter + Probe	Electra	288	Due 10 th June 2009	α (cps)	β (cps)
	DP6	2765	Due 10 th June 2009	0	
					7 – 9

Surface Monitoring	Dose Rate (μSv/hr)	Contamination		
		α (cps)	β (cps)	gamma (cps)
		0	7 – 9	93 – 115

Material Surveyed (Made Ground, Clay etc)	Depth (mbGL)	Dose Rate (μSv/hr)	Contamination		
			α (cps)	β (cps)	gamma (cps)
Clay	0.8		0	7 – 9	97 – 123
Clay	1.4		0	7 – 9	95 – 128
Clay	2.2		0	7 – 9	98 – 131
Clay	3.0		0	7 – 9	93 – 136

Ancillary Equipment (drill rig, tools etc)	Dose Rate (μSv/hr)	Contamination	
		α (cps)	β (cps)

See over

DATE		BOREHOLE / TRIAL PIT REFERENCE NUMBER	
-------------	--	--	--

Additional Comments/Actions

All samples recorded at background activity levels

Monitors Name (print)	T. Baker	Monitors Signature	
----------------------------------	----------	-------------------------------	--

Appendix B

Exploratory Hole Logs

Project Name: Mensa Remediation Works		Coordinates		Drilling Method: Cable Percussive			Hole Type Cable
Project No. JER3996/8S8F		Northings: 468233.30		Start Date: 27/08/2008		Hole Details	
Location: AWE Burghfield		Eastings: 167916.35		End Date: 27/08/2008		Hole Diameter (mm)	Casing Depth (m)
Client: AWE plc		Ground Level: 43.510 m OD		Logged By: CJW		Scale 1:50	

Well	Water Strikes	Samples & In Situ Testing			Level (m AOD)	Depth (m)	Legend	Description Of Strata	
		Depth (m)	Type	Results					
		0.00-0.50 0.00	E W				[Cross-hatch pattern]	Soft, brown, mottled orange, sandy, gravelly CLAY with frequent brick and wood fragments and occasional concrete cobbles. Gravel is fine to coarse, angular to subrounded of flint. (MADE GROUND)	43.01
		0.50-1.00	E						42.51
		1.00 1.00-1.50 1.00-1.50	PID1 D X	VOC = 2.30	42.51	1.00	[Horizontal line pattern]	Soft to firm, brown, mottled orange and grey, gravelly, sandy CLAY. Gravel is fine to coarse, angular to subrounded of flint and chalk. (WEATHERED LONDON CLAY)	42.01
		2.00-2.50	E						41.51
					40.11	3.40			41.01
							[Horizontal line pattern]	Becoming stiffer and less sandy with depth.	40.51
									40.01
									39.51
									39.01
							[Horizontal line pattern]	Stiff to very stiff, grey, mottled orange and brown CLAY. (LONDON CLAY)	38.51
									38.01
									37.51
					37.51	6.00			37.01
							End of Borehole at 6.00 m		36.51
									36.01
									35.51
									35.01
									34.51
									34.01

Remarks:	Chiselling Details				Groundwater Notes		
	Time Taken	Depth From (m)	Depth To (m)	Tool Used	Strike (m)	Casing Depth (m)	Level After 20 Mins (m)



Project Name: Mensa Remediation Works		Coordinates		Drilling Method: Cable Percussive			Hole Type Cable	
Project No. JER3996/8S8F		Northings: 468101.35		Start Date: 12/08/2008		Hole Details		
Location: AWE Burghfield		Eastings: 167840.91		End Date: 12/08/2008		Hole Diameter (mm)		Casing Depth (m)
Client: AWE plc		Ground Level: 44.580 m OD		Logged By: BC		Scale 1:50		

Well	Water Strikes	Samples & In Situ Testing			Level (m AOD)	Depth (m)	Legend	Description Of Strata	
		Depth (m)	Type	Results					
		0.00	W		44.28	0.30		Soft, brown, mottled orange, slightly sandy CLAY with frequent rootlets. Brick and wood fragments. (MADE GROUND)	44.08
		0.60	PID1	VOC = 13.00	43.93	0.65		Soft, brown, mottled orange, very sandy, gravelly CLAY. Gravel is fine to coarse, subangular to subrounded of chalk and flint. Frequent wood and brick fragments. (MADE GROUND)	43.58
		0.60	D		43.58	1.00		Soft, brown, mottled orange, sandy, very gravelly CLAY. Gravel is fine to coarse, subangular to subrounded of chalk and flint. Frequent wood and brick fragments. (MADE GROUND)	43.08
		0.60	E		43.08	1.50		Firm, brown, mottled orange and grey, sandy, gravelly CLAY. Gravel is fine to coarse, subangular to subrounded of flint and chalk. Occasional brick fragments (MADE GROUND)	42.58
		1.20	E					Stiff, brown, mottled orange and grey, slightly sandy, slightly gravelly CLAY. Gravel is fine to medium, subangular to subrounded of flint and chalk. (WEATHERED LONDON CLAY)	41.58
		1.50	E					Clay becoming stiffer and grey with depth.	41.08
					39.08	5.50		Stiff to very stiff, grey CLAY. (LONDON CLAY)	39.08
					38.58	6.00		End of Borehole at 6.00 m	38.08
									37.58
									37.08
									36.58
									36.08
									35.58
									35.08

Remarks:	Chiselling Details				Groundwater Notes		
	Time Taken	Depth From (m)	Depth To (m)	Tool Used	Strike (m)	Casing Depth (m)	Level After 20 Mins (m)



Project Name: Mensa Remediation Works		Coordinates		Drilling Method: Cable Percussive			Hole Type Cable
Project No. JER3996/8S8F		Northings: 468179.26		Start Date: 12/08/2008		Hole Details	
Location: AWE Burghfield		Eastings: 167837.70		End Date: 13/08/2008		Hole Diameter (mm)	Casing Depth (m)
Client: AWE plc		Ground Level: 44.080 m OD		Logged By: BC/CJW		Scale 1:50	

Well	Water Strikes	Samples & In Situ Testing			Level (m AOD)	Depth (m)	Legend	Description Of Strata
		Depth (m)	Type	Results				
		0.00	W		43.78	0.30		Soft brown, sandy, very gravelly CLAY with frequent rootlets. Gravel is fine to coarse, subangular to subrounded of chalk and flint. (TOPSOIL)
		0.50	D		43.58	0.50		Soft to firm, brown, orange, sandy, slightly gravelly CLAY. Gravel is fine to coarse, subangular to subrounded of chalk and flint. Occasional brick and wood fragments. (MADE GROUND)
		0.80	X					
		1.00	PID1	VOC = 0.70				
		1.00	E					
					42.58	1.50		Soft to firm, brown, mottled orange, very sandy, gravelly CLAY. Gravel is fine to coarse, subangular to subrounded of chalk and flint. Frequent brick and wood fragments. (MADE GROUND)
		2.00	E					Firm brown, mottled orange and grey, sandy, slightly gravelly CLAY. Gravel is fine to medium, subangular to subrounded of chalk and flint. (WEATHERED LONDON CLAY)
		3.00	E					
					40.33	3.75		Stiff to very stiff, grey, mottled orange and brown CLAY. (LONDON CLAY)
					34.58	9.50		Soft to firm, grey, black, sandy, slightly gravelly CLAY. Gravel is fine to coarse, angular to subrounded of flint,

Continued next sheet

Remarks:	Chiselling Details				Groundwater Notes		
	Time Taken	Depth From (m)	Depth To (m)	Tool Used	Strike (m)	Casing Depth (m)	Level After 20 Mins (m)



Project Name: Mensa Remediation Works		Coordinates		Drilling Method: Cable Percussive			Hole Type Cable
Project No. JER3996/8S8F		Northings: 468179.26		Start Date: 12/08/2008		Hole Details	
Location: AWE Burghfield		Eastings: 167837.70		End Date: 13/08/2008		Hole Diameter (mm)	Casing Depth (m)
Client: AWE plc		Ground Level: 44.080 m OD		Logged By: BC/CJW		Scale 1:50	

Well	Water Strikes	Samples & In Situ Testing			Level (m AOD)	Depth (m)	Legend	Description Of Strata	
		Depth (m)	Type	Results					
								chalk and mudstone. (READING BEDS)	33.58
									33.08
									32.58
									32.08
									31.58
									31.08
					30.58	13.50		Soft, grey, sandy gravelly CLAY with frequent shell fragments. Gravel is fine to medium, subangular to subrounded of flint, chalk and mudstone. (READING BEDS)	30.58
									30.08
									29.58
									29.08
									28.58
					28.08	16.00		Soft brown sandy CLAY with lenses of strong mudstone. (READING BEDS)	28.08
									27.58
									27.08
									26.58
					26.08	18.00		End of Borehole at 18.00 m	26.08
									25.58
									25.08
									24.58

Remarks:	Chiselling Details				Groundwater Notes		
	Time Taken	Depth From (m)	Depth To (m)	Tool Used	Strike (m)	Casing Depth (m)	Level After 20 Mins (m)



Project Name: Mensa Remediation Works		Coordinates		Drilling Method: Cable Percussive		Hole Type Cable	
Project No. JER3996/8S8F		Northings: 468083.12		Start Date: 18/08/2008		Hole Details	
Location: AWE Burghfield		Eastings: 168209.40		End Date: 18/08/2008		Hole Diameter (mm)	
Client: AWE plc		Ground Level: 44.350 m OD		Logged By: CJW		Casing Depth (m)	
Scale 1:50							

Well	Water Strikes	Samples & In Situ Testing			Level (m AOD)	Depth (m)	Legend	Description Of Strata
		Depth (m)	Type	Results				
		0.00-1.00 0.00	E W		43.85	0.50		Firm, dark brown, grey, sandy, gravelly CLAY with frequent brick fragments. Gravel is fine to medium, subrounded of flint. (MADE GROUND)
		1.00-1.50 1.00-1.50 1.00-1.50	D X E		42.35	2.00		Soft to firm, light brown mottled orange and grey, slightly sandy, gravelly CLAY. Gravel if fine to medium, subangular to subrounded of flint. (MADE GROUND)
		1.50	PID1	VOC = 4.90	42.35	2.00		Firm, brown, grey, mottled orange, slightly sandy, slightly gravelly CLAY. Gravel is fine to medium, subangular of orange, grey and brown mudstone. (WEATHERED LONDON CLAY)
		3.00-3.50	E		40.35	4.00		Clay becomes dark brown with depth.
					40.35	4.00		Firm to stiff, grey, mottled brown CLAY with occasional shell fragments. (LONDON CLAY)
					35.85	8.50		Brown mottling disappears by 5.0mbGL. Firm, grey, CLAY with occasional sandy bands. (LONDON CLAY)

Continued next sheet

Remarks:	Chiselling Details				Groundwater Notes		
	Time Taken	Depth From (m)	Depth To (m)	Tool Used	Strike (m)	Casing Depth (m)	Level After 20 Mins (m)



Project Name: Mensa Remediation Works		Coordinates		Drilling Method: Cable Percussive			Hole Type Cable
Project No. JER3996/8S8F		Northings: 468083.12		Start Date: 18/08/2008		Hole Details	
Location: AWE Burghfield		Eastings: 168209.40		End Date: 18/08/2008		Hole Diameter (mm)	Casing Depth (m)
Client: AWE plc		Ground Level: 44.350 m OD		Logged By: CJW		Scale 1:50	

Well	Water Strikes	Samples & In Situ Testing			Level (m AOD)	Depth (m)	Legend	Description Of Strata	
		Depth (m)	Type	Results					
					34.35	10.00		Soft, locally firm, grey, CLAY. (READING BEDS) Thin band of green, grey sandy SILT with shell fragments from 10.2 - 10.3mbGL.	33.85 33.35 32.85 32.35 31.85 31.35 30.85 30.35 29.85 29.35 28.85
					28.35	16.00		Soft brown sandy CLAY with lenses of strong mudstone. (READING BEDS)	28.35 27.85 27.35 26.85
					26.35	18.00		End of Borehole at 18.00 m	26.35 25.85 25.35 24.85

Remarks:	Chiselling Details				Groundwater Notes		
	Time Taken	Depth From (m)	Depth To (m)	Tool Used	Strike (m)	Casing Depth (m)	Level After 20 Mins (m)





BOREHOLE LOG

Borehole No.
BH8S-002
Sheet 1 of 1

Project Name: Mensa Remediation Works		Coordinates		Drilling Method: Cable Percussive			Hole Type Cable
Project No. JER3996/8S8F		Northings: 468086.23		Start Date: 18/08/2008		Hole Details	
Location: AWE Burghfield		Eastings: 168208.60		End Date: 18/08/2008		Hole Diameter (mm)	Casing Depth (m)
Client: AWE plc		Ground Level: 44.290 m OD		Logged By: BC		Scale 1:50	

Well	Water Strikes	Samples & In Situ Testing			Level (m AOD)	Depth (m)	Legend	Description Of Strata	
		Depth (m)	Type	Results					
		0.00	W		43.89	0.40	[Cross-hatch pattern]	Soft to firm, brown, mottled orange, sandy, gravelly CLAY with frequent brick fragments. Gravel is fine to coarse, subangular to subrounded of flint. (MADE GROUND)	43.79
		0.80	E				[Cross-hatch pattern]	Firm orange brown mottled grey sandy gravelly CLAY. Gravel is fine to coarse angular to subrounded of flint and chalk. (MADE GROUND)	43.29
		1.50	PID1	VOC = 6.90	42.79	1.50	[Wavy pattern]	Firm to stiff, brown, mottled orange, very sandy, gravelly CLAY. Gravel is fine to coarse, angular to subrounded of flint, chalk and mudstone. (WEATHERED LONDON CLAY)	42.29
		1.50	D				[Wavy pattern]		
		1.50	X				[Wavy pattern]		
		1.50	E				[Wavy pattern]		
		2.30	E		41.99	2.30	[Wavy pattern]	Stiff grey, mottled orange and brown, slightly sandy CLAY. (LONDON CLAY)	41.79
							[Wavy pattern]		41.29
							[Wavy pattern]		40.79
							[Wavy pattern]		40.29
							[Wavy pattern]		39.79
							[Wavy pattern]		39.29
							[Wavy pattern]		38.79
							[Wavy pattern]		38.29
					37.79	6.50	[Dashed line]	End of Borehole at 6.50 m	37.79
							[Dashed line]		37.29
							[Dashed line]		36.79
							[Dashed line]		36.29
							[Dashed line]		35.79
							[Dashed line]		35.29
							[Dashed line]		34.79

Remarks:	Chiselling Details				Groundwater Notes		
	Time Taken	Depth From (m)	Depth To (m)	Tool Used	Strike (m)	Casing Depth (m)	Level After 20 Mins (m)



Project Name: Mensa Remediation Works	Co-ords: N - 167916.34	Ground Level: 43.860mOD	Date: 14/08/2008
Project No. JER3996/8S8F	E - 468202.79		
Location: AWE Burghfield	Weather: Cloudy		Scale 1:25
Client: AWE plc	Equipment: JCB 3CX		Logged by: BC

Samples & In Situ Testing				Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Ref	Results				
0.10				0.10	43.76		Turf over soft brown sandy CLAY with frequent rootlets. (TOPSOIL)
0.30	E	1					Soft to firm, brown mottled orange, sandy, gravelly CLAY. Gravel is fine to coarse, subangular to subrounded of flint, chalk and mudstone. (MADE GROUND)
0.75	PID1	1	VOCs =1.00ppm				
0.75	D	1					
0.75	X	1					
0.75	E	2					
1.10	E	3		1.10	42.76		Firm to stiff, brown mottled orange and grey, sandy, gravelly CLAY. Gravel is fine to coarse, subangular to subrounded of flint, chalk and mudstone. (WEATHERED LONDON CLAY)
							Clay becomes stiffer with depth.
				3.10	40.76		Trial Pit Complete at 3.10 m

Stability: Good

Groundwater: None encountered

Remarks:



Project Name: Mensa Remediation Works	Co-ords: N - 167930.35 E - 468215.09	Ground Level 43.860mOD	Date: 15/08/2008
Project No. JER3996/8S8F			
Location: AWE Burghfield	Weather: Cloudy, Light Rain		Scale 1:25
Client: AWE plc	Equipment: JCB 3CX		Logged by: BC

Samples & In Situ Testing				Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Ref	Results				
0.30	E	1		0.30	43.56		Turf over, soft brown, sandy, slightly gravelly CLAY with frequent rootlets. Gravel is fine to medium, subangular to subrounded of chalk and flint. (TOPSOIL)
0.60	PID1	1	VOCs =3.70ppm	0.60	43.26		Soft to firm, brown, mottled orange, very sandy, gravelly CLAY. Gravel is fine to coarse, angular to subrounded of flint and chalk. (MADE GROUND)
0.60	D	1					
0.60	X	1					
0.60	E	2					
0.90	E	3		0.90	42.96		Firm to stiff, brown, mottled orange and grey, sandy, slightly gravelly CLAY. Gravel is fine to coarse, subangular to subrounded of flint, chalk and mudstone. (WEATHERED LONDON CLAY)
							Clay becomes stiffer with depth.
				3.00	40.86		Trial Pit Complete at 3.00 m



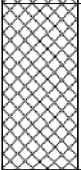
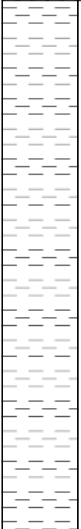
Stability: Stable

Groundwater: None encountered

Remarks: Black and yellow label marked ELECTRICITY encountered at 0.2mbGL - Trial pit moved 1.0m to the south.



Project Name: Mensa Remediation Works	Co-ords: N - 167908.31	Ground Level: 43.980mOD	Date: 14/08/2008
Project No. JER3996/8S8F	E - 468210.55		
Location: AWE Burghfield	Weather: Cloudy, Light Rain	Scale: 1:25	
Client: AWE plc	Equipment: JCB 3CX	Logged by: BC	

Samples & In Situ Testing				Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Ref	Results				
0.30	E	1		0.30	43.68		Turf over, loose, brown, sandy, gravelly CLAY with frequent rootlets. Gravel is fine to coarse, subangular to subrounded of chalk and flint. (TOPSOIL) Metal drain cover (50mm x 40mm) encountered at 0.2mbGL.
0.60	PID1	1	VOCs =1.90ppm	0.60	43.38		Soft, brown, mottled orange, sandy, gravelly CLAY. Gravel is fine to coarse, subangular to subrounded of flint and chalk. (MADE GROUND)
0.60	D	1					
0.60	X	1					
0.60	E	2					Soft to firm, brown, mottled orange, sandy, very gravelly CLAY. Gravel is fine to coarse, subangular to subrounded of flint, chalk and mudstone. (MADE GROUND)
1.15	E	3		1.15	42.83		Firm to stiff, brown, mottled orange and grey, sandy, slightly gravelly CLAY. Gravel is fine to coarse, subangular to subrounded of flint, chalk and mudstone. (WEATHERED LONDON CLAY)
				2.90	41.08		Trial Pit Complete at 2.90 m

Stability: Stable

Groundwater: None encountered

Remarks: Metal drain cover (50mm x 40mm) encountered at 0.2mbGL.



Project Name: Mensa Remediation Works	Co-ords: N - 167880.58	Ground Level: 43.960mOD	Date: 13/08/2008
Project No. JER3996/8S8F	E - 468071.70		
Location: AWE Burghfield	Weather: Rain	Scale 1:25	
Client: AWE plc	Equipment: JCB 3CX	Logged by: DJB	

Samples & In Situ Testing				Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Ref	Results				
0.10-0.20	E	1		0.10	43.86		Turf over soft dark brown slightly sandy CLAY. (TOPSOIL)
0.00-1.00 0.50	D X	1 1					Firm, dark brown to brown CLAY with numerous rootlets and rare coarse angular gravel of white and grey flint. Rare cobbles of flint. Frequent fragments of red brick and concrete boulders. (MADE GROUND)
0.90 0.90-1.00 1.00	D E PID1	1 2 1	VOCs =4.30ppm				Coarse, subangular to subrounded gravels of flint and occasional clay pipe fragments. Possibly old land drain due to rapid ingress of water.
				1.20	42.76		Trial Pit Complete at 1.20 m

Stability: Unstable in silt and gravel

Groundwater: Rapid ingress of water at 0.7mbGL.

Remarks: Trial pit terminated at 1.2mbGL due to instability and proximity of steam pipe



Project Name: Mensa Remediation Works	Co-ords: N - 167867.12 E - 468059.14	Ground Level 44.030mOD	Date: 12/08/2008
Project No. JER3996/8S8F			
Location: AWE Burghfield	Weather: Cloudy and Windy	Scale 1:25	
Client: AWE plc	Equipment: JCB 3CX	Logged by: DJB	

Samples & In Situ Testing				Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Ref	Results				
0.10	PID1	1	VOCs =1.80ppm	0.10	43.93		TOPSOIL (TOPSOIL)
0.10-0.30	D	1					Firm, dark brown to brown CLAY with numerous rootlets and rare coarse angular gravel of white and grey flint. Rare cobbles of flint and fragments of red brick. (MADE GROUND)
0.10-0.30	E	1					
0.10-0.30	X	1					
0.90	PID2	2	VOCs =4.60ppm	0.90	43.13		Soft damp, grey, green, Silty CLAY. Possibly old ground level. (MADE GROUND)
0.90-1.00	D	2					
0.90-1.00	E	2					
1.40	PID3	3	VOCs =6.20ppm	1.40	42.63		Firm, dark brown to brown CLAY with numerous rootlets and rare coarse angular gravel of white and grey flint. Rare cobbles of flint and fragments of red brick. (MADE GROUND)
1.40-1.60	D	3					
1.40-1.60	E	3		1.60	42.43		Damp, orange brown, clayey, slightly sandy GRAVEL. Gravel is fine to coarse, subangular to subrounded of white, brown and grey flint. Sand is coarse and angular.
							Stiff orange brown, mottled grey CLAY. (WEATHERED LONDON CLAY)
2.30	PID4	4	VOCs =6.90ppm	2.30			
2.30-2.60	D	4					
2.30-2.60	E	4					
3.10	PID5	5	VOCs =2.70ppm	3.10	40.73		Stiff orange brown, mottled grey CLAY. (WEATHERED LONDON CLAY)
3.10-3.20	D	5					
3.10-3.20	E	5					
				3.30		Trial Pit Complete at 3.20 m	

Stability: Unstable in gravel.

Groundwater: Seepage of water from 1.0mbGL possibly due to adjacent soakaway.

Remarks:



Project Name: Mensa Remediation Works	Co-ords: N - 167859.67 E - 468071.28	Ground Level 44.240mOD	Date: 12/08/2008
Project No. JER3996/8S8F			
Location: AWE Burghfield	Weather: Cloudy and Windy	Scale 1:25	
Client: AWE plc	Equipment: JCB 3CX	Logged by: DJB	

Samples & In Situ Testing				Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Ref	Results				
0.10	PID1	1	VOCs =12.40ppm	0.10	44.14		TOPSOIL (TOPSOIL)
0.10-0.30	D	1					Firm, dark brown to brown CLAY with numerous rootlets and rare coarse angular gravel of white and grey flint. Rare cobbles of flint and fragments of red brick. (MADE GROUND)
0.10-0.30	E	1					
0.10-0.30	X	1					
0.70	PID2	2	VOCs =16.20ppm				
0.70-0.90	D	2					Damp, orange, brown, clayey, slightly sandy GRAVEL. Gravel is fine to coarse, subangular to subrounded of white, brown and grey flint. Sand is coarse and angular. (MADE GROUND)
0.70-0.90	E	2					
1.20	PID3	3	VOCs =15.00ppm	1.10	43.14		Damp, orange, brown, clayey, slightly sandy GRAVEL. Gravel is fine to coarse, subangular to subrounded of white, brown and grey flint. Sand is coarse and angular. (MADE GROUND)
1.20-1.40	D	3					
1.20-1.40	E	3		1.40	42.84		
							Stiff brown, mottled orange and grey CLAY. (WEATHERED LONDON CLAY)
1.90-2.00	D	4					
1.90-2.00	E	4	VOCs =7.40ppm				
2.00	PID4	4					
							Stiff, grey, brown and orange CLAY with rare mudstone cobbles. (WEATHERED LONDON CLAY)
3.10	PID5	5	VOCs =6.80ppm	3.10	41.14		
3.10-3.20	D	5					
3.10-3.20	E	5					Trial Pit Complete at 3.40 m
				3.40	40.84		

Stability: Good

Groundwater: None encountered

Remarks:



Project Name: Mensa Remediation Works	Co-ords: N - 167866.93	Ground Level: 44.730mOD	Date: 13/08/2008
Project No. JER3996/8S8F	E - 468087.72		
Location: AWE Burghfield	Weather: Rain and Wind.	Scale: 1:25	
Client: AWE plc	Equipment: JCB 3CX	Logged by: DJB	

Samples & In Situ Testing				Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Ref	Results				
0.10-0.20	E	1		0.10	44.63		Turf over soft dark brown slightly sandy CLAY. (TOPSOIL)
0.00-0.60	D	1					Firm, dark brown to brown, slightly gravelly CLAY with numerous rootlets. Gravel is coarse angular to subrounded of chalk and white and grey flint. Rare cobbles of flint. Frequent fragments of red brick and concrete boulders. (MADE GROUND)
0.50-0.60	X E PID1	1 2 1	VOCs =1.90ppm	0.60	44.13		
0.80-1.00	E	3		0.80	43.93		Soft, black, slightly sandy, CLAY with rootlets (old soil horizon) (MADE GROUND)
				1.40	43.33		
				1.50	43.23		Damp, orange brown, clayey, slightly sandy GRAVEL. Gravel is fine to coarse, subangular to subrounded of white, brown and grey flint. Sand is coarse and angular. (MADE GROUND)
							Firm to stiff brown orange and grey mottled CLAY. (WEATHERED LONDON CLAY) Localised pockets of stiff, light grey, slightly sandy, gravelly CLAY.
				3.00	41.73		Stiff, damp, grey mottled brown and orange CLAY. (WEATHERED LONDON CLAY) Becomes more grey / less mottled with depth.
				3.40	41.33		Trial Pit Complete at 3.40 m





Stability: Slightly unstable in gravels

Groundwater: Slight seepage of water from 1.4-1.5mbGL in gravels.

Remarks:



Project Name: Mensa Remediation Works	Co-ords: N - 167886.75 E - 468103.86	Ground Level 44.180mOD	Date: 14/08/2008
Project No. JER3996/8S8F			
Location: AWE Burghfield	Weather: Cloudy and Warm	Scale 1:25	
Client: AWE plc	Equipment: JCB 3CX	Logged by: BC	

Samples & In Situ Testing				Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Ref	Results				
0.30	E	1		0.30	43.88		Turf over soft brown, sandy, gravelly, CLAY with frequent rootlets. Gravel is subangular to subrounded, fine to coarse of chalk and flint. Frequent brick fragments. (TOPSOIL)
							Soft to firm, brown, mottled orange, very sandy, gravelly CLAY. Gravel is subangular to subrounded, fine to coarse of chalk, flint and mudstone. Frequent brick fragments. (MADE GROUND)
1.10	PID1	1	VOCs =8.60ppm	1.10	43.08		Brown, grey, orange, clayey, sandy GRAVEL. Gravel is fine to coarse, angular to subrounded of flint and chalk. (MADE GROUND)
1.10	D	1					
1.10	X	1					
1.10	E	2					
1.40	E	3		1.40	42.78		Firm to stiff, brown mottled orange and grey, sandy, gravelly CLAY. Gravel is fine to coarse, subangular to subrounded of flint, chalk and mudstone. (WEATHERED LONDON CLAY)
				2.40	41.78	Trial Pit Complete at 2.40 m	




Stability: Unstable in gravels

Groundwater: Water ingress from 1.1mbGL in gravels.

Remarks:



Project Name: Mensa Remediation Works	Co-ords: N - 167860.03 E - 468126.08	Ground Level 44.430mOD	Date: 14/08/2008
Project No. JER3996/8S8F			
Location: AWE Burghfield	Weather: Cloudy and Warm	Scale 1:25	
Client: AWE plc	Equipment: JCB 3CX	Logged by: BC	

Samples & In Situ Testing				Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Ref	Results				
0.25	E	1		0.25	44.18		Turf over, soft, brown, grey, sandy, gravelly CLAY. Gravel is fine to coarse, angular to subangular of chalk and flint. Frequent brick fragments. (MADE GROUND)
0.85	PID1	1	VOCs =2.20ppm				
0.85	D	1					
0.85	X	1					
0.85	E	2					
				1.30	43.13		Soft to firm, brown, mottled orange, sandy, gravelly CLAY. Gravel is fine to coarse, subangular to subrounded of chalk and flint. Frequent whole and broken bricks. (MADE GROUND)
				1.30	43.13		Firm to stiff, brown, mottled orange and grey, sandy, gravelly CLAY. Gravel is fine to coarse, subangular to subrounded of flint, chalk and mudstone. (WEATHERED LONDON CLAY) Clay becomes stiffer with depth.
2.50	E	3		2.70	41.73		Trial Pit Complete at 2.70 m

Stability: Stable

Groundwater: None encountered

Remarks:



Project Name: Mensa Remediation Works	Co-ords: N - 167851.36 E - 468116.14	Ground Level 44.630mOD	Date: 13/08/2008
Project No. JER3996/8S8F			
Location: AWE Burghfield	Weather: Rain and Wind.	Scale 1:25	
Client: AWE plc	Equipment: JCB 3CX	Logged by: DJB	

Samples & In Situ Testing				Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Ref	Results				
0.10-0.20	E	1		0.10	44.53		Turf over soft dark brown slightly sandy CLAY. (TOPSOIL)
0.00-0.80	D	1					Soft, light brown, slightly sandy, slightly gravelly, CLAY. Gravel is fine to coarse, subangular to subrounded of flint. Frequent red brick fragments. (MADE GROUND)
0.50	X	1					
0.70-0.80	E	2		0.80	43.83		Soft, black, slightly sandy, CLAY with rootlets (old soil horizon) (MADE GROUND)
0.80	PID1	1	VOCs =5.80ppm				
0.90-1.00	E	3		1.00	43.63		Damp, orange, brown, clayey, slightly sandy GRAVEL. Gravel is fine to coarse, subangular to subrounded of white, brown and grey flint. Sand is coarse and angular. (MADE GROUND) Pockets of light grey sandy, gravelly CLAY between 1.0mbGL and 1.6mbGL.
				1.30	43.33		
							Firm to stiff, brown, orange and grey mottled CLAY. (WEATHERED LONDON CLAY)
				3.00	41.63		
				3.60	41.03		
Trial Pit Complete at 3.60 m							

Stability: Slightly unstable in gravels

Groundwater: None encountered

Remarks:



Project Name: Mensa Remediation Works	Co-ords: N - 167839.82 E - 468129.41	Ground Level 44.680mOD	Date: 13/08/2008
Project No. JER3996/8S8F			
Location: AWE Burghfield	Weather: Cloudy and Windy	Scale 1:25	
Client: AWE plc	Equipment: JCB 3CX	Logged by: DJB	

Samples & In Situ Testing				Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Ref	Results				
0.10-0.20	E	1		0.10	44.58		Turf over soft dark brown slightly sandy CLAY. (TOPSOIL)
0.00-0.90 0.50	D X	1 1					Firm, dark brown to brown, slightly gravelly CLAY with numerous rootlets. Gravel is coarse angular to subrounded of chalk and white and grey flint. Rare cobbles of flint. Occasional concrete blocks with rebar and half red bricks. (MADE GROUND)
0.80-0.90 0.90 0.90-1.00	E PID1 E	2 1 3	VOCs =4.60ppm	0.90 0.95	43.78 43.73		Soft, black, slightly sandy, CLAY with rootlets (old soil horizon) (MADE GROUND)
							Firm to stiff, brown, orange and grey mottled CLAY. (WEATHERED LONDON CLAY) Pockets of light grey sandy, gravelly CLAY. Becoming greyer / less mottled with depth.
				3.10	41.58		Stiff, grey, mottled orange and brown CLAY with occasional broken shells. (WEATHERED LONDON CLAY) Cobbles of red/brown mudstone from 3.1mbGL.
				3.60	41.08		Trial Pit Complete at 3.30 m

Stability: Stable

Groundwater: None encountered

Remarks:



Project Name: Mensa Remediation Works	Co-ords: N - 167837.25 E - 468142.77	Ground Level 44.590mOD	Date: 13/08/2008
Project No. JER3996/8S8F			
Location: AWE Burghfield	Weather: Windy, Cool and Sunny.	Scale 1:25	
Client: AWE plc	Equipment: JCB 3CX	Logged by: DJB	

Samples & In Situ Testing				Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Ref	Results				
0.10-0.20 0.20	E PID1	1 1	VOCs =11.70ppm	0.10	44.49		Turf over soft dark brown slightly sandy CLAY. (TOPSOIL)
0.00-1.00 0.50	D X	1 1		0.40	44.19		Soft, locally firm, damp, light brown, slightly sandy, very gravelly CLAY. Gravel is fine to coarse, subangular to subrounded of white and brown flint and chalk. (MADE GROUND)
1.20 1.20	D E	2 2		1.20	43.39		Soft, damp, brown, slightly sandy, gravelly CLAY. Gravel; is fine to coarse, subangular to subrounded of white brown flint and chalk. Black staining associated with wood fragments. (MADE GROUND) Wooden telegraph pole with an odour of cresote encountered at 0.5mbGL.
Trial Pit Complete at 1.20 m							





Stability: Very Unstable

Groundwater: None encountered

Remarks: Trial pit terminated at 1.2mbGL due to instability.



Project Name: Mensa Remediation Works	Co-ords: N - 167847.63	Ground Level: 44.660mOD	Date: 14/08/2008
Project No. JER3996/8S8F	E - 468153.54		
Location: AWE Burghfield	Weather: Cloudy		Scale 1:25
Client: AWE plc	Equipment: JCB 3CX		Logged by: BC

Samples & In Situ Testing				Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Ref	Results				
0.10				0.10	44.56		Turf over soft dark brown slightly sandy, slightly gravelly CLAY with frequent rootlets. Gravel is fine to medium, subangular to subrounded of white and brown flint. (TOPSOIL)
0.30	E	1					Soft, brown, very sandy, very gravelly, CLAY. Gravel is fine to coarse, subangular to subrounded of white and brown flint and chalk. Frequent whole and fragmented red bricks. (MADE GROUND)
0.50-1.00	D	1					
0.50-1.00	X	1					
0.50-1.00	E	2					
1.00	PID1	1	VOCs =1.40ppm				
				1.10	43.56		Firm to stiff, brown, orange and grey mottled, slightly sandy, slightly gravelly CLAY. (WEATHERED LONDON CLAY)
1.50	E	3					Occasional lenses of gravel encountered. Gravel is fine to coarse, subangular to subrounded of flint and mudstone.
							Clay becomes stiffer with depth.
				2.50	42.16		Trial Pit Complete at 2.60 m




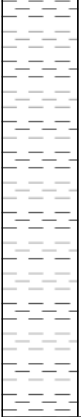
Stability: Good

Groundwater: None encountered

Remarks:



Project Name: Mensa Remediation Works	Co-ords: N - 167842.98	Ground Level: 44.690mOD	Date: 14/08/2008
Project No. JER3996/8S8F	E - 468172.06		
Location: AWE Burghfield	Weather: Cloudy		Scale 1:25
Client: AWE plc	Equipment: JCB 3CX		Logged by: BC

Samples & In Situ Testing				Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Ref	Results				
0.30	E	1		0.25	44.44		Turf over, loose brown, orange, sandy, slightly gravelly CLAY with frequent rootlets. Gravel is fine to coarse, subangular to subrounded of flint and chalk (TOPSOIL)
0.50	X	1		0.50	44.19		Soft, brown, sandy, gravelly CLAY. Gravel is fine to coarse, angular to subrounded of flint and chalk. Occasional brick and wood fragments encountered. (MADE GROUND) Concrete boulder (20cm x 30cm) encountered at 0.3mbGL.
0.85	D	1		1.20	43.49		Gravel lense encountered in eastern pit face at 0.9mbGL.
0.85	E	2					
0.85	X	2					
1.50	E	3		2.60	42.09		Firm to stiff, brown, mottled orange and grey, sandy, gravelly CLAY. Gravel is fine to coarse, subangular to subrounded of flint, chalk and mudstone. (WEATHERED LONDON CLAY)
Trial Pit Complete at 2.60 m							

Stability: Stable

Groundwater: None encountered

Remarks: Concrete boulder (20cm x 30cm) encountered at 0.3mbGL.



Project Name: Mensa Remediation Works	Co-ords: N - 167845.87 E - 468205.44	Ground Level 43.930mOD	Date: 20/08/2008
Project No. JER3996/8S8F			
Location: AWE Burghfield	Weather: Cloudy	Scale 1:25	
Client: AWE plc	Equipment: JCB 3CX	Logged by: BC	

Samples & In Situ Testing				Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Ref	Results				
0.00-0.30	E	1	VOCs = 1.00ppm	0.10	43.83		Turf over soft, brown, sandy, gravelly CLAY with frequent rootlets. (TOPSOIL)
0.30-0.30	PID1	1		0.40	43.53		Loose, brown, sandy, gravelly CLAY. Gravel is fine to coarse, angular to subrounded of flint and chalk. Frequent brick, metal and wood fragments. (MADE GROUND) Concrete slab encountered at 0.3mbGL - possible concrete railway sleeper. Asbestos cement tile encountered at 0.3mbGL.
0.30-0.60	ASB	1		0.60	43.33		Brown, grey, orange, clayey, sandy GRAVEL. Gravel is fine to coarse, angular to subrounded of flint and chalk. Gravel related to historic land drain. (MADE GROUND) Historic land drain encountered at 0.4mbGL.
0.30-0.60	D	1		0.90	43.03		Soft to firm, brown, mottled orange and grey, sandy CLAY. (WEATHERED LONDON CLAY)
0.30-0.60	X	1		1.30			Firm-stiff, brown, mottled orange and grey, sandy, slightly gravelly CLAY. Gravel is fine to medium, subangular to subrounded of flint, chalk and mudstone. (WEATHERED LONDON CLAY)
	E	2					
				2.20	41.73	Trial Pit Complete at 2.20 m	

Stability: Good

Groundwater: None encountered

Remarks: Concrete slab encountered at 0.3mbGL - possible concrete railway sleeper. Asbestos cement tile encountered at 0.3mbGL. Historic land drain encountered at 0.4mbGL.



Project Name: Mensa Remediation Works	Co-ords: N - 167825.76 E - 468186.56	Ground Level 43.620mOD	Date: 13/08/2008
Project No. JER3996/8S8F			
Location: AWE Burghfield	Weather: Rain and Wind	Scale 1:25	
Client: AWE plc	Equipment: Hand Tools	Logged by: DJB	

Samples & In Situ Testing				Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Ref	Results				
0.10				0.10	43.52		Turf over soft, brown, sandy, gravelly CLAY with frequent rootlets. (TOPSOIL)
0.20	PID1	1	VOCs = 1.40ppm				
0.20	D	1					
0.20-0.40	E	1					
0.50-1.00	X	1					Soft to firm, brown, sandy, gravelly CLAY. Gravel is fine to coarse, angular to subrounded of flint and chalk. Frequent brick, metal and wood fragments. (MADE GROUND)
0.90-1.10	E	2					
				1.20	42.42		Trial Pit Complete at 1.20 m

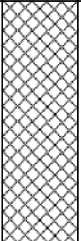
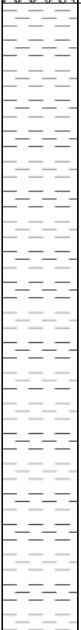

Stability: Stable

Groundwater: None encountered

Remarks: Trial pit terminated at 1.2mbGL due to proximity of steam pipe and buried services. TP was excavated to 1.2mbGL using Hand Tools.



Project Name: Mensa Remediation Works	Co-ords: N - 168217.05 E - 468039.88	Ground Level 44.170mOD	Date: 18/08/2008
Project No. JER3996/8S8F			
Location: AWE Burghfield	Weather: Cloudy, Light Rain	Scale 1:25	
Client: AWE plc	Equipment: JCB 3CX	Logged by: CJW	

Samples & In Situ Testing				Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Ref	Results				
0.90	E	1		0.80	43.37		Soft to firm, brown, mottled orange, sandy CLAY with frequent brick fragments and concrete cobbles. (MADE GROUND)
1.10	PID1	1	VOCs =1.40ppm				Firm, brown, mottled orange, slightly gravelly CLAY. Gravel is fine to medium, subangular of flint. (WEATHERED LONDON CLAY)
1.10	D	1					
1.10	X	1					
1.10	E	2					
3.00	E	3		2.90 3.00	41.27 41.17		Stiff, brown, grey CLAY with occasional shell fragments. (WEATHERED LONDON CLAY)
Trial Pit Complete at 3.00 m							

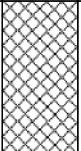

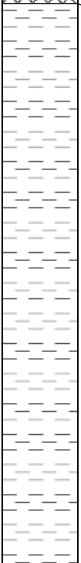
Stability: Stable

Groundwater: Damp at 1.85mbGL.

Remarks:



Project Name: Mensa Remediation Works	Co-ords: N - 168212.17 E - 468121.91	Ground Level 44.040mOD	Date: 18/08/2008
Project No. JER3996/8S8F			
Location: AWE Burghfield	Weather: Sunny and Cloudy	Scale 1:25	
Client: AWE plc	Equipment: JCB 3CX	Logged by: CJW	

Samples & In Situ Testing				Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Ref	Results				
0.90	E	1		0.50	43.54		Firm, brown, mottled orange and grey, sandy, gravelly CLAY with frequent brick fragments. Gravel is fine to medium, subangular to subrounded of flint. (MADE GROUND) Concrete boulder encountered at 0.4mbGL.
1.00	PID1	1	VOCs =2.70ppm				
1.00	D	1					
1.00	X	1		1.10	42.94		Firm, brown, mottled orange, slightly gravelly CLAY with rare carbonaceous inclusions. Gravel is fine to medium, subangular of flint. (MADE GROUND) Band of fine to medium, subangular to subrounded flint gravel encountered at 1.0mbGL.
1.00	E	2					
							Firm to stiff, brown, mottled orange and grey, sandy, slightly gravelly CLAY. Gravel is fine to coarse, subangular to subrounded of flint, chalk and mudstone. (WEATHERED LONDON CLAY) Shell fragments from 2.8mbGL.
3.00	E	3		3.00	41.04		Trial Pit Complete at 3.00 m


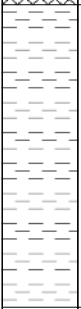
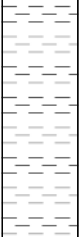
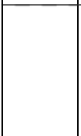
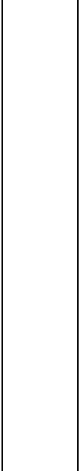
Stability: Stable

Groundwater: Damp at 2.7mbGL.

Remarks: 0.4m thick layer of fill/worked ground had been put on approximately 1 week prior to investigation. Concrete boulder encountered at 0.4mbGL.



Project Name: Mensa Remediation Works	Co-ords: N - 168215.65 E - 468064.55	Ground Level 44.140mOD	Date: 18/08/2008
Project No. JER3996/8S8F			
Location: AWE Burghfield	Weather: Cloudy and Windy	Scale 1:25	
Client: AWE plc	Equipment: JCB 3CX	Logged by: CJW	

Samples & In Situ Testing				Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Ref	Results				
0.80	E	1					Firm brown, mottled orange and grey, gravelly CLAY with frequent whole and broken bricks, and concrete cobbles. (MADE GROUND)
1.10	PID1	1	VOCs =0.80ppm	1.20	42.94		Firm, brown, grey mottled blue CLAY. (WEATHERED LONDON CLAY)
1.10	D	1					
1.10	X	1					
1.10	E	2					Band of fine to medium, subangular to subrounded flint gravel encountered at 1.7mbGL.
				2.20	41.94		Firm to stiff, brown, grey, blue sandy, slightly gravelly CLAY with regular bands of orange sand. Gravel is fine to medium, subangular to subrounded of flint and chalk. (WEATHERED LONDON CLAY)
				3.00	41.14		Trial Pit Complete at 3.00 m


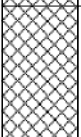
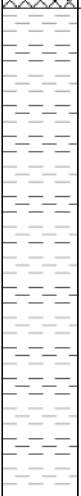
Stability: Stable

Groundwater: Water ingress at 1.7mbGL.

Remarks:



Project Name: Mensa Remediation Works	Co-ords: N - 168193.82 E - 468111.16	Ground Level 43.950mOD	Date: 15/08/2008
Project No. JER3996/8S8F			
Location: AWE Burghfield	Weather: Sunny and Cloudy	Scale 1:25	
Client: AWE plc	Equipment: JCB 3CX	Logged by: CJW	

Samples & In Situ Testing				Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Ref	Results				
0.40				0.40	43.55		Firm, brown, mottled orange gravelly CLAY with occasional brick fragments and rootlets. Gravel is fine to medium of flint. (MADE GROUND)
0.60	E	1					Firm, brown, orange, mottled grey sandy gravelly CLAY. Gravel is very fine to medium, angular to subrounded of flint. (MADE GROUND) Black staining/colouration observed in clay 0.5 to 1.3mbGL.
0.90	PID1	1	VOCs =3.10ppm				
0.90	D	1					
0.90	X	1					
0.90	E	2					Orange/yellow band of sand encountered at 1.1mbGL.
1.40	E	3		1.30	42.65		Firm to stiff, brown, mottled orange and grey, sandy, slightly gravelly CLAY. Gravel is fine to coarse, subangular to subrounded of flint, chalk and mudstone. (WEATHERED LONDON CLAY)
				3.00	40.95		Trial Pit Complete at 3.00 m


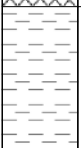
Stability: Stable

Groundwater: Water ingress at 1.35mbGL and 2.4mbGL from clay.

Remarks: 0.4m thick layer of fill/worked ground had been put on approximately 1 week prior to investigation.



Project Name: Mensa Remediation Works	Co-ords: N - 168259.45 E - 468013.17	Ground Level 43.760mOD	Date: 26/08/2008
Project No. JER3996/8S8F			
Location: AWE Burghfield	Weather: Sunny and Cloudy	Scale 1:25	
Client: AWE plc	Equipment: Hand Tools	Logged by: CJW	

Samples & In Situ Testing				Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Ref	Results				
0.50 0.50	PID1 D	1 1	VOCs =3.60ppm				Firm brown slightly sandy, gravelly CLAY. Gravel is fine to coarse, angular to subrounded of brick and flint. (MADE GROUND)
0.50-1.00 0.50-1.00	E X	1 1		0.70	43.06		Firm to stiff brown and grey mottled slightly sandy CLAY. (WEATHERED LONDON CLAY)
				1.20	42.56		Trial Pit Complete at 1.20 m

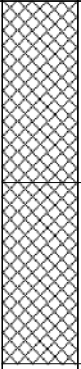
Stability: Stable

Groundwater: None encountered

Remarks:



Project Name: Mensa Remediation Works	Co-ords: N - 168244.28	Ground Level	Date: 18/08/2008
Project No. JER3996/8S8F	E - 468042.50	44.230mOD	
Location: AWE Burghfield	Weather: Cloudy and Warm	Scale	1:25
Client: AWE plc	Equipment: Hand Tools	Logged by: BC	

Samples & In Situ Testing				Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Ref	Results				
0.60	PID1	1	VOCs =1.20ppm	0.60	43.63		Soft, brown mottled orange, sandy, gravelly CLAY. Gravel is fine to coarse, subangular to subrounded of flint and chalk. Occasional red brick fragments, concrete cobbles, rebar and wood pieces. (MADE GROUND)
0.60	D	1					Soft to firm, brown, mottled orange, sandy, gravelly CLAY. Gravel is fine to coarse, subangular to subrounded of flint, chalk and mudstone. Occasional brick fragments. (MADE GROUND)
0.60	E	1					
0.60	X	1					
				1.20	43.03		Trial Pit Complete at 1.20 m



Stability: Good

Groundwater: None encountered

Remarks:



Project Name: Mensa Remediation Works	Co-ords: N - 168231.36	Ground Level: 43.160mOD	Date: 18/08/2008
Project No. JER3996/8S8F	E - 468109.03		
Location: AWE Burghfield	Weather: Cloudy and Warm	Scale: 1:25	
Client: AWE plc	Equipment: Hand Tools	Logged by: BC	

Samples & In Situ Testing				Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Ref	Results				
				0.40	42.76		Soft brown mottled orange, sandy, gravelly CLAY. Gravel is fine to coarse, subangular to subrounded of flint and chalk. Occasional red brick fragments, concrete cobbles, rebar and wood pieces. (MADE GROUND)
				0.80	42.36		Soft damp, brown mottled orange with areas of black staining, sandy, gravelly CLAY. Gravel is fine to coarse, subangular to subrounded of flint and chalk. (MADE GROUND)
0.80	PID1	1	VOCs =2.80ppm	0.80	42.36		
0.80	D	1					
0.80	E	1					
0.80	X	1					
----- Trial Pit Complete at 0.80 m -----							




Stability: Unstable from 0.4mbGL due to water ingress.

Groundwater: Slight water ingress at 0.4mbGL.

Remarks:



Project Name: Mensa Remediation Works	Co-ords: N - 168206.83 E - 468127.79	Ground Level 43.950mOD	Date: 18/08/2008
Project No. JER3996/8S8F			
Location: AWE Burghfield	Weather: Cloudy, Light Rain	Scale 1:25	
Client: AWE plc	Equipment: Hand Tools	Logged by: CJW	

Samples & In Situ Testing				Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Ref	Results				
0.00-1.20	D	1		0.15	43.80		Soft dark brown, sandy, slightly gravelly CLAY with frequent rootlets and brick fragments. Gravel is fine to medium, subrounded of flint. (MADE GROUND)
0.00-1.20	E	1					Soft orange sandy CLAY. (MADE GROUND)
0.00-1.20	X	1		0.80	43.15		Soft to firm, grey brown, sandy CLAY. (WEATHERED LONDON CLAY)
1.20	PID1	1	VOCs =1.70ppm	1.20	42.75		Trial Pit Complete at 1.20 m

Stability: Stable

Groundwater: None encountered

Remarks:



Appendix C

Gas and Groundwater Monitoring Results

Water Quality Sheet

Project Name

Project No.

Date

Mensa Remediation Works
JER3996
04/09/2008

DO

Borehole	Sample No	Date	Time	Temp	pH	EC	%	ppm	TDS	SAL	ORP	-pHmV	Purge Volume (litres)	Pre purge Dip (mbTIC)	Pre purge Base (mbTIC)	Post purge Dip (mbTIC)	Post purge Base (mbTIC)	Correction to Ground Level (m)	Comments
BH8F-002	1	04/09/08	11:00	15.77	7.72	3412	53.0	5.10	1710	1.81	-134.5	-67.3	15.00	5.73	14.88	6.84	15.78	0.07	
	2	04/09/08	11:10	14.09	7.12	3778	535.0	3.48	1896	2.02	-144.6	-37.1	35.00						
	3	04/09/08	11:20	13.82	7.53	2881	32.1	3.13	1441	1.51	-181.2	-58.5	50.00						
BH8F-003	1	04/09/08	12:00	14.39	7.13	5309	75.4	7.44	2656	2.89	-177.9	-36.0	6.00	3.12	6.01	5.37	6.01	0.12	
	2	04/09/08	12:20	13.86	6.69	6631	77.9	7.84	3318	3.60	-185.4	-13.1	12.00						

Water Quality Sheet

Project Name
Project No.
Date

Mensa Remediation Works
JER3996
16/09/2008

Borehole	Sample No	Date	Time	Temp	pH	EC	DO		TDS	SAL	ORP	-pHmV	Purge Volume (litres)	Pre purge Dip (mbTIC)	Pre purge Base (mbTIC)	Post purge Dip (mbTIC)	Post purge Base (mbTIC)	Correction to Ground Level (m)	Comments
							%	ppm											
BH8F-001	1	16/09/08	11:45	14.92	7.40	4099	62.1	6.17	2051	2.19	-134.3	-13.5	6.00	2.87	5.52	5.07	5.91	0.12	
	2	16/09/08	11:50	14.71	7.26	4261	73.2	7.30	2135	2.29	-125.0	-9.9	12.00						
	3	16/09/08	11:55	15:34	7.28	4266	63.9	6.23	2110	2.26	-121.7	-8.5	18.00						
BH8F-002	1	16/09/08	13:55	15.12	8.27	3034	47.2	4.66	1506	1.56	-159.0	-57.5	30.00	5.68	15.80	6.31	16.20	0.07	
	2	16/09/08	14:10	14.94	7.56	2614	30.0	3.01	1504	1.36	-150.4	-29.8	40.00						
	3	16/09/08	14:20	13.74	7.63	1893	38.3	3.84	946	0.97	-124.2	-32.1	60.00						
BH8F-003	1	16/09/08	14:40	15.23	8.71	5636	59.7	5.26	2833	3.10	-162.0	-44.5	4.00	3.70	5.87	5.05	5.89	0.12	
	2	16/09/08	14:50	13.63	7.46	6004	54.0	5.42	3004	3.29	-156.5	-16.1	8.00						
	3	16/09/08	14:55	13.29	7.30	6101	57.6	5.89	3053	3.35	-153.0	-8.7	12.00						
BH8S-001	1	16/09/08	09:55	14.43	7.74	3264	76.0	7.58	1631	1.72	-144.0	-24.3	10.00	1.39	6.44	5.19	6.44	0.20	
	2	16/09/08	10:00	14.09	7.20	3429	72.6	7.40	1741	1.81	-122.1	-14.9	20.00						
	3	16/09/08	10:05	14.43	7.21	3523	79.0	8.04	1760	1.87	-118.2	-11.1	30.00						
BH8S-002	1	16/09/08	10:40	13.28	7.70	2800	43.4	4.48	1401	1.47	-171.5	-33.0	20.00	5.69	16.77	5.73	16.77	0.11	
	2	16/09/08	10:50	13.33	7.59	2521	46.5	4.78	1261	1.31	-179.2	-28.7	40.00						
	3	16/09/08	11:00	13.52	7.62	2236	51.3	5.30	1117	1.16	-175.5	-31.5	60.00						

Water Quality Sheet

Project Name

Project No.

Date

Mensa Remediation Works
JER3996
30/09/2008

Borehole	Sample No	Date	Time	Temp	pH	EC	DO		TDS	SAL	ORP	-pHmV	Purge Volume (litres)	Pre purge Dip (mbTIC)	Pre purge Base (mbTIC)	Post purge Dip (mbTIC)	Post purge Base (mbTIC)	Correction to Ground Level (m)	Comments
							%	ppm											
BH8F-001	1	30/09/08	11:00	14.48	8.55	4957	85.9	8.40	2475	2.68	-165.1	-52.9	5.00	3.53	5.92	5.30		0.12	
	2	30/09/08	11:10	14.34	7.70	5099	78.4	7.52	2554	2.77	-154.1	-26.3	10.00						
	3	30/09/08	11:20	14.27	7.43	5199	81.7	8.80	2575	2.79	-145.4	-16.6	15.00						
BH8F-002	1	30/09/08	11:30	13.31	7.79	3056	750.0	7.36	1534	1.62	-161.5	-38.0	15.00	6.08	16.88	6.77		0.07	
	2	30/09/08	11:40	13.29	7.75	2318	82.2	8.21	1185	1.23	-144.5	-35.7	30.00						
	3	30/09/08	11:50	13.51	7.62	2354	74.1	7.25	1178	1.22	-130.7	-32.1	45.00						
	4	30/09/08	12:00	13.37	7.63	2303	87.7	8.46	1157	1.19	-117.3	-30.7	60.00						
BH8F-003	1	30/09/08	12:15	13.67	9.12	5813	91.2	8.91	2962	3.24	-155.5	-57.7	6.00	3.73	5.88	5.25		0.12	
	2	30/09/08	12:25	13.21	7.23	6222	82.8	8.02	3120	3.43	-135.1	-3.0	12.00						
BH8S-001	1	30/09/08	14:00	13.74	9.80	3680	89.7	882.00	1848	1.97	-164.9	-80.3	12.00	1.62	6.43	4.54		0.20	
	2	30/09/08	14:15	13.57	7.96	3649	95.9	9.77	1829	1.94	-139.6	-37.2	24.00						
BH8S-002	1	30/09/08	14:30	13.17	7.61	2561	30.7	3.10	1430	1.50	-194.1	-29.0	25.00	5.79	17.75			0.11	
	2	30/09/08	14:40	13.98	7.51	2840	38.8	3.82	1420	1.49	-195.3	-25.9	50.00						
	3	30/09/08	14:55	12.96	7.43	2810	32.7	3.18	1443	1.39	-196.1	-27.3	75.00						

Appendix D

Explosives Results – Soils

TEST CERTIFICATE

Certificate No: BC0882/08

Site : AWE Burghfield JER3996

Ref : A0009/08

Client : RPS Planning and Development

Date Received : 26/08/2008

Address : St Anne's House
Oxford Square
Oxford Street
Newbury

Date Completed : 09/09/2008

Date Of Report : 09/09/2008

RG14 1JQ

Attention : Chris Warde

Accreditation Key:

U = UKAS

M = UKAS & MCERTS

= Subcontracted Tests

Test Methods

Residential explosives using method ESAL/QC/4 parts a, k, n and either l or m

Approved :



Dr D.G. Malcolm
Laboratory Manager

Mrs S. Marriott
Deputy Laboratory Manager

Mr M. Lattughi
Senior Analyst

Mr D.C. Poole
Senior Analyst



No. 1764

BAE SYSTEMS

REAL SOLUTIONS. REAL ADVANTAGE.

TABLE OF RESULTS

Soil - Defence (Part 1 of 7)

Lab Code	20085546			20085547			20085548			20085549		
Client Ref A	TP8F-001			TP8F-002			TP8F-003			TP8F-004		
Client Ref B	0.75m			0.6m			0.6m			0.5m		
Sample Type	Soil			Soil			Soil			Soil		
Soil Type	Clay - Brown			Clay - Brown			Clay - Brown			Clay - Brown		
NC Colour	<ve		^M	<ve		^M	<ve		^M	<ve		^M
NC Colourimetric	<5000	mg/kg	^M	<5000	mg/kg	^M	<5000	mg/kg	^M	<5000	mg/kg	^M
HMX	<2	mg/kg	^M	<2	mg/kg	^M	<2	mg/kg	^M	<2	mg/kg	^M
RDX	<2	mg/kg	^M	<2	mg/kg	^M	<2	mg/kg	^M	<2	mg/kg	^M
EGDN	<0.1	mg/kg	^M	<0.1	mg/kg	^M	<0.1	mg/kg	^M	<0.1	mg/kg	^M
Tetryl	<1	mg/kg	^M	<1	mg/kg	^M	<1	mg/kg	^M	<1	mg/kg	^M
NG	<0.1	mg/kg	^M	<0.1	mg/kg	^M	<0.1	mg/kg	^M	<0.1	mg/kg	^M
TNT	<0.5	mg/kg	^M	<0.5	mg/kg	^M	<0.5	mg/kg	^M	<0.5	mg/kg	^M
PETN	<5	mg/kg	^M	<5	mg/kg	^M	<5	mg/kg	^M	<5	mg/kg	^M
HNS	<0.5	mg/kg	^M	<0.5	mg/kg	^M	<0.5	mg/kg	^M	<0.5	mg/kg	^M
Picrite	<0.25	mg/kg	^M	<0.25	mg/kg	^M	<0.25	mg/kg	^M	<0.25	mg/kg	^M
Picric Acid	<0.1	mg/kg	^M	<0.1	mg/kg	^M	<0.1	mg/kg	^M	<0.1	mg/kg	^M
2,4-DNT	<1	mg/kg	^M	<1	mg/kg	^M	<1	mg/kg	^M	<1	mg/kg	^M
2,6-DNT	<1	mg/kg	^M	<1	mg/kg	^M	<1	mg/kg	^M	<1	mg/kg	^M

TABLE OF RESULTS

Soil - Defence (Part 2 of 7)

Lab Code	20085550			20085551			20085552			20085553		
Client Ref A	TP8F-005			TP8F-006			TP8F-007			TP8F-008		
Client Ref B	0.1-0.3m			0.1-0.3m			0.5m			1.1m		
Sample Type	Soil			Soil			Soil			Soil		
Soil Type	Clay - Brown			Clay - Brown			Clay - Brown			Clay - Brown		
NC Colour	-ve		M	-ve		M	-ve		M	-ve		M
NC Colourimetric	<5000	mg/kg	M	<5000	mg/kg	M	<5000	mg/kg	M	<5000	mg/kg	M
HMX	<2	mg/kg	M	<2	mg/kg	M	<2	mg/kg	M	<2	mg/kg	M
RDX	<2	mg/kg	M	<2	mg/kg	M	<2	mg/kg	M	<2	mg/kg	M
EGDN	<0.1	mg/kg	M	<0.1	mg/kg	M	<0.1	mg/kg	M	<0.1	mg/kg	M
Tetryl	<1	mg/kg	M	<1	mg/kg	M	<1	mg/kg	M	<1	mg/kg	M
NG	<0.1	mg/kg	M	<0.1	mg/kg	M	<0.1	mg/kg	M	<0.1	mg/kg	M
TNT	<0.5	mg/kg	M	<0.5	mg/kg	M	<0.5	mg/kg	M	<0.5	mg/kg	M
PETN	<5	mg/kg	M	<5	mg/kg	M	<5	mg/kg	M	<5	mg/kg	M
HNS	<0.5	mg/kg	M	<0.5	mg/kg	M	<0.5	mg/kg	M	<0.5	mg/kg	M
Picrite	<0.25	mg/kg	M	<0.25	mg/kg	M	<0.25	mg/kg	M	<0.25	mg/kg	M
Picric Acid	<0.1	mg/kg	M	<0.1	mg/kg	M	<0.1	mg/kg	M	<0.1	mg/kg	M
2,4-DNT	<1	mg/kg	M	<1	mg/kg	M	<1	mg/kg	M	<1	mg/kg	M
2,6-DNT	<1	mg/kg	M	<1	mg/kg	M	<1	mg/kg	M	<1	mg/kg	M

TABLE OF RESULTS

Soil - Defence (Part 3 of 7)

Lab Code	20085554		20085555		20085556		20085557	
Client Ref A	TP8F-009		TP8F-010		TP8F-011		TP8F-012	
Client Ref B	0.85m		0.5m		0.5m		0.5m	
Sample Type	Soil		Soil		Soil		Soil	
Soil Type	Clay - Brown		Clay - Brown		Clay - Brown		Clay - Brown	
NC Colour	-ve	M	-ve	M	-ve	M	-ve	M
NC Colourimetric	<5000	mg/kg M	<5000	mg/kg M	<5000	mg/kg M	<5000	mg/kg M
HMX	<2	mg/kg M	<2	mg/kg M	<2	mg/kg M	<2	mg/kg M
RDX	<2	mg/kg M	<2	mg/kg M	<2	mg/kg M	<2	mg/kg M
EGDN	<0.1	mg/kg M	<0.1	mg/kg M	<0.1	mg/kg M	<0.1	mg/kg M
Tetryl	<1	mg/kg M	<1	mg/kg M	<1	mg/kg M	<1	mg/kg M
NG	<0.1	mg/kg M	<0.1	mg/kg M	<0.1	mg/kg M	<0.1	mg/kg M
TNT	<0.5	mg/kg M	<0.5	mg/kg M	<0.5	mg/kg M	<0.5	mg/kg M
PETN	<5	mg/kg M	<5	mg/kg M	<5	mg/kg M	<5	mg/kg M
HNS	<0.5	mg/kg M	<0.5	mg/kg M	<0.5	mg/kg M	<0.5	mg/kg M
Picrite	<0.25	mg/kg M	<0.25	mg/kg M	<0.25	mg/kg M	<0.25	mg/kg M
Picric Acid	<0.1	mg/kg M	<0.1	mg/kg M	<0.1	mg/kg M	<0.1	mg/kg M
2,4-DNT	<1	mg/kg M	<1	mg/kg M	<1	mg/kg M	<1	mg/kg M
2,6-DNT	<1	mg/kg M	<1	mg/kg M	<1	mg/kg M	<1	mg/kg M

TABLE OF RESULTS

Soil - Defence (Part 4 of 7)

Lab Code	20085558			20085559			20085560			20085561		
Client Ref A	TP8F-013			TP8F-014			TP8F-015			TP8F-016		
Client Ref B	0.5-1.0m			0.5m			0.6m			0.5-1.0m		
Sample Type	Soil			Soil			Soil			Soil		
Soil Type	Clay - Brown			Clay - Brown			Top Soil (Standard)			Clay - Brown		
NC Colour	-ve		M	-ve		M	-ve		M	-ve		M
NC Colourimetric	<5000	mg/kg	M	<5000	mg/kg	M	<5000	mg/kg	M	<5000	mg/kg	M
HMX	<2	mg/kg	M	<2	mg/kg	M	<2	mg/kg	M	<2	mg/kg	M
RDX	<2	mg/kg	M	<2	mg/kg	M	<2	mg/kg	M	<2	mg/kg	M
EGDN	<0.1	mg/kg	M	<0.1	mg/kg	M	<0.1	mg/kg	M	<0.1	mg/kg	M
Tetryl	<1	mg/kg	M	<1	mg/kg	M	<1	mg/kg	M	<1	mg/kg	M
NG	<0.1	mg/kg	M	<0.1	mg/kg	M	<0.1	mg/kg	M	<0.1	mg/kg	M
TNT	<0.5	mg/kg	M	<0.5	mg/kg	M	<0.5	mg/kg	M	<0.5	mg/kg	M
PETN	<5	mg/kg	M	<5	mg/kg	M	<5	mg/kg	M	<5	mg/kg	M
HNS	<0.5	mg/kg	M	<0.5	mg/kg	M	<0.5	mg/kg	M	<0.5	mg/kg	M
Picrite	<0.25	mg/kg	M	<0.25	mg/kg	M	<0.25	mg/kg	M	<0.25	mg/kg	M
Picric Acid	<0.1	mg/kg	M	<0.1	mg/kg	M	<0.1	mg/kg	M	<0.1	mg/kg	M
2,4-DNT	<1	mg/kg	M	<1	mg/kg	M	<1	mg/kg	M	<1	mg/kg	M
2,6-DNT	<1	mg/kg	M	<1	mg/kg	M	<1	mg/kg	M	<1	mg/kg	M

TABLE OF RESULTS

Soil - Defence (Part 5 of 7)

Lab Code	20085562			20085563			20085564			20085565		
Client Ref A	TP8S-004			BH8F-002			BH8F-003			TP8S-001		
Client Ref B	0.9m			0.6m			0.5-0.8m			1.1m		
Sample Type	Soil			Soil			Soil			Soil		
Soil Type	Clay - Brown			Top Soil (Standard)			Clay - Brown			Clay - Brown		
NC Colour	-ve		M	-ve		M	-ve		M	-ve		M
NC Colourimetric	<5000	mg/kg	M	<5000	mg/kg	M	<5000	mg/kg	M	<5000	mg/kg	M
HMX	<2	mg/kg	M	<2	mg/kg	M	<2	mg/kg	M	<2	mg/kg	M
RDX	<2	mg/kg	M	<2	mg/kg	M	<2	mg/kg	M	<2	mg/kg	M
EGDN	<0.1	mg/kg	M	<0.1	mg/kg	M	<0.1	mg/kg	M	<0.1	mg/kg	M
Tetryl	<1	mg/kg	M	<1	mg/kg	M	<1	mg/kg	M	<1	mg/kg	M
NG	<0.1	mg/kg	M	<0.1	mg/kg	M	<0.1	mg/kg	M	<0.1	mg/kg	M
TNT	<0.5	mg/kg	M	<0.5	mg/kg	M	<0.5	mg/kg	M	<0.5	mg/kg	M
PETN	<5	mg/kg	M	<5	mg/kg	M	<5	mg/kg	M	<5	mg/kg	M
HNS	<0.5	mg/kg	M	<0.5	mg/kg	M	<0.5	mg/kg	M	<0.5	mg/kg	M
Picrite	<0.25	mg/kg	M	<0.25	mg/kg	M	<0.25	mg/kg	M	<0.25	mg/kg	M
Picric Acid	<0.1	mg/kg	M	<0.1	mg/kg	M	<0.1	mg/kg	M	<0.1	mg/kg	M
2,4-DNT	<1	mg/kg	M	<1	mg/kg	M	<1	mg/kg	M	<1	mg/kg	M
2,6-DNT	<1	mg/kg	M	<1	mg/kg	M	<1	mg/kg	M	<1	mg/kg	M

TABLE OF RESULTS

Soil - Defence (Part 6 of 7)

Lab Code	20085566			20085567			20085568			20085569		
Client Ref A	TP8S-002			TP8S-003			BH8S-001			BH8S-002		
Client Ref B	1.0m			1.1m			1.0-1.5m			1.5m		
Sample Type	Soil			Soil			Soil			Soil		
Soil Type	Clay - Brown			Clay - Brown			Clay - Brown			Clay - Brown		
NC Colour	-ve		M	-ve		M	-ve		M	-ve		M
NC Colourimetric	<5000	mg/kg	M	<5000	mg/kg	M	<5000	mg/kg	M	<5000	mg/kg	M
HMX	<2	mg/kg	M	<2	mg/kg	M	<2	mg/kg	M	<2	mg/kg	M
RDX	<2	mg/kg	M	<2	mg/kg	M	<2	mg/kg	M	<2	mg/kg	M
EGDN	<0.1	mg/kg	M	<0.1	mg/kg	M	<0.1	mg/kg	M	<0.1	mg/kg	M
Tetryl	<1	mg/kg	M	<1	mg/kg	M	<1	mg/kg	M	<1	mg/kg	M
NG	<0.1	mg/kg	M	<0.1	mg/kg	M	<0.1	mg/kg	M	<0.1	mg/kg	M
TNT	<0.5	mg/kg	M	<0.5	mg/kg	M	<0.5	mg/kg	M	<0.5	mg/kg	M
PETN	<5	mg/kg	M	<5	mg/kg	M	<5	mg/kg	M	<5	mg/kg	M
HNS	<0.5	mg/kg	M	<0.5	mg/kg	M	<0.5	mg/kg	M	<0.5	mg/kg	M
Picrite	<0.25	mg/kg	M	<0.25	mg/kg	M	<0.25	mg/kg	M	<0.25	mg/kg	M
Picric Acid	<0.1	mg/kg	M	<0.1	mg/kg	M	<0.1	mg/kg	M	<0.1	mg/kg	M
2,4-DNT	<1	mg/kg	M	<1	mg/kg	M	<1	mg/kg	M	<1	mg/kg	M
2,6-DNT	<1	mg/kg	M	<1	mg/kg	M	<1	mg/kg	M	<1	mg/kg	M

TABLE OF RESULTS

Soil - Defence (Part 7 of 7)

Lab Code	20085570			20085571			20085572		
Client Ref A	HP8S-002			HP8S-003			HP8S-004		
Client Ref B	0.6m			0.8m			0-1.2m		
Sample Type	Soil			Soil			Soil		
Soil Type	Clay - Brown			Clay - Brown			Clay - Brown		
NC Colour	<ve		M	<ve		M	<ve		M
NC Colourimetric	<5000	mg/kg	M	<5000	mg/kg	M	<5000	mg/kg	M
HMX	<2	mg/kg	M	<2	mg/kg	M	<2	mg/kg	M
RDX	<2	mg/kg	M	<2	mg/kg	M	<2	mg/kg	M
EGDN	<0.1	mg/kg	M	<0.1	mg/kg	M	<0.1	mg/kg	M
Tetryl	<1	mg/kg	M	<1	mg/kg	M	<1	mg/kg	M
NG	<0.1	mg/kg	M	<0.1	mg/kg	M	<0.1	mg/kg	M
TNT	<0.5	mg/kg	M	<0.5	mg/kg	M	<0.5	mg/kg	M
PETN	<5	mg/kg	M	<5	mg/kg	M	<5	mg/kg	M
HNS	<0.5	mg/kg	M	<0.5	mg/kg	M	<0.5	mg/kg	M
Picrite	<0.25	mg/kg	M	<0.25	mg/kg	M	<0.25	mg/kg	M
Picric Acid	<0.1	mg/kg	M	<0.1	mg/kg	M	<0.1	mg/kg	M
2,4-DNT	<1	mg/kg	M	<1	mg/kg	M	<1	mg/kg	M
2,6-DNT	<1	mg/kg	M	<1	mg/kg	M	<1	mg/kg	M

COMMENTS AND DEPARTURES FROM STANDARD PROCEDURES

Lab ID

Notes

There were no comments or departures from standard procedures

NOTES

1. This test report shall not be reproduced except in full, without written approval of the laboratory.
2. All results for soil samples are reported based on dry weight of soil which has been air-dried in open, shallow trays at ambient temperatures below 30°C and subsequently ground and sieved to pass through a nominal 750µm aperture sieve. In most cases, analysis is carried out directly on these prepared soils, with the following exceptions: volatile organic compounds; total and speciated phenols; free, total and complex cyanide; petrol range organic compounds; sulphide. These analyses are carried out on the soil "As received" and corrected for the known dry weight (at 105 °C) prior to reporting.
3. BAE Systems does not correct results for analytical recoveries.
4. Where provided, the value for total cresols is derived from the sum of the results for m- & p- cresol and o- cresol.
5. Where provided, the value for total xylenols is derived from the sum of the results for 3,4-dimethylphenol, 2,6-dimethylphenol, 3,5-dimethylphenol, 2,3-dimethylphenol, 2,5-dimethylphenol and 2,4-dimethylphenol.
6. Where provided, the value for total phenols is derived from the sum of the results for resorcinol, phenol, m- & p-cresol, o- cresol, 3,4-dimethylphenol, 2,6-dimethylphenol, 3,5-dimethylphenol, 2,3-dimethylphenol, 2,5-dimethylphenol, 2,4-dimethylphenol, 1-naphthol, 2-isopropylphenol, 2,3,5-trimethylphenol and pentachlorophenol.
7. All samples were received in good condition unless otherwise stated. Results provided by the Laboratory are based on samples submitted by clients. Once submitted, samples requiring analysis are stored at below 8 °C. The Laboratory cannot be held responsible for the storage, condition or preservation of samples prior to arrival.
8. Validation studies indicate that the concentration of nitrocellulose in high organic content soils may be overestimated.
9. A value of NQ indicates that a quantitative result could not be obtained because doping trials showed that the compound was retained by the matrix.
10. Soil descriptions are given in order to provide a log of sample matrices submitted and are not intended as full geological descriptions.
11. The initials or common names used for reporting explosives relate to the following compounds: Nitrocellulose(NC); Cyclotetramethylene Tetranitramine (HMX); Cyclo-1,3,5-Trimethylene-2,4,6-Trinitramine (RDX); Ethylene Glycol Dinitrate (EGDN); 2,4,6-Trinitro-Phenylmethyl Nitramine (Tetryl); Glycerol Trinitrate (NG); 2,4,6-Trinitrotoluene (TNT); Pentaerythritol Tetranitrate (PETN); Hexanitro-Stilbene (HNS); Nitroguanidine (Picrite); 2,4,6-Trinitro Phenol (Picric Acid); 2,4-Dinitrotoluene (2,4-DNT); 2,6-Dinitrotoluene (2,6-DNT).
12. * Some reporting limits may be raised due to poor recovery of internal standard or dilution of highly contaminated samples.
13. # Mass spectral match criteria were not fully met, possibly indicating a co-eluting peak that may inflate the result.
14. Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

End of Report BC0882/08

TEST CERTIFICATE

Certificate No: BC0923/08

Site : JER 3996

Ref : A0009/08

Client : RPS Planning and Development

Date Received : 03/09/2008

Address : St Anne's House
Oxford Square
Oxford Street
Newbury

Date Completed : 12/09/2008

Date Of Report : 12/09/2008

RG14 1JQ

Attention : Chris Warde

Accreditation Key:

U = UKAS

M = UKAS & MCERTS

= Subcontracted Tests

Test Methods

Residential explosives using method ESAL/QC/4 parts a, k, n and either l or m

Approved :



Dr D.G. Malcolm
Laboratory Manager

Mrs S. Marriott
Deputy Laboratory Manager

Mr M. Lattughi
Senior Analyst

Mr D.C. Poole
Senior Analyst



No. 1764

BAE SYSTEMS

REAL SOLUTIONS. REAL ADVANTAGE.

TABLE OF RESULTS

Soil - Defence

Lab Code	20085868		
Client Ref A	HP8S 001		
Client Ref B	0.0 - 1M		
Sample Type	Soil		
Soil Type	Clay - Brown		
NC Colour	-ve		M
NC Colourimetric	<5000	mg/kg	M
HMX	<2	mg/kg	M
RDX	<2	mg/kg	M
EGDN	<0.1	mg/kg	M
Tetryl	<1	mg/kg	M
NG	<0.1	mg/kg	M
TNT	<0.5	mg/kg	M
PETN	<5	mg/kg	M
HNS	<0.5	mg/kg	M
Picrite	<0.25	mg/kg	M
Picric Acid	<0.1	mg/kg	M
2,4-DNT	<1	mg/kg	M
2,6-DNT	<1	mg/kg	M

COMMENTS AND DEPARTURES FROM STANDARD PROCEDURES

Lab ID

Notes

There were no comments or departures from standard procedures

NOTES

1. This test report shall not be reproduced except in full, without written approval of the laboratory.
2. All results for soil samples are reported based on dry weight of soil which has been air-dried in open, shallow trays at ambient temperatures below 30°C and subsequently ground and sieved to pass through a nominal 750µm aperture sieve. In most cases, analysis is carried out directly on these prepared soils, with the following exceptions: volatile organic compounds; total and speciated phenols; free, total and complex cyanide; petrol range organic compounds; sulphide. These analyses are carried out on the soil "As received" and corrected for the known dry weight (at 105 °C) prior to reporting.
3. BAE Systems does not correct results for analytical recoveries.
4. Where provided, the value for total cresols is derived from the sum of the results for m- & p- cresol and o- cresol.
5. Where provided, the value for total xylenols is derived from the sum of the results for 3,4-dimethylphenol, 2,6-dimethylphenol, 3,5-dimethylphenol, 2,3-dimethylphenol, 2,5-dimethylphenol and 2,4-dimethylphenol.
6. Where provided, the value for total phenols is derived from the sum of the results for resorcinol, phenol, m- & p-cresol, o- cresol, 3,4-dimethylphenol, 2,6-dimethylphenol, 3,5-dimethylphenol, 2,3-dimethylphenol, 2,5-dimethylphenol, 2,4-dimethylphenol, 1-naphthol, 2-isopropylphenol, 2,3,5-trimethylphenol and pentachlorophenol.
7. All samples were received in good condition unless otherwise stated. Results provided by the Laboratory are based on samples submitted by clients. Once submitted, samples requiring analysis are stored at below 8 °C. The Laboratory cannot be held responsible for the storage, condition or preservation of samples prior to arrival.
8. Validation studies indicate that the concentration of nitrocellulose in high organic content soils may be overestimated.
9. A value of NQ indicates that a quantitative result could not be obtained because doping trials showed that the compound was retained by the matrix.
10. Soil descriptions are given in order to provide a log of sample matrices submitted and are not intended as full geological descriptions.
11. The initials or common names used for reporting explosives relate to the following compounds: Nitrocellulose(NC); Cyclotetramethylene Tetranitramine (HMX); Cyclo-1,3,5-Trimethylene-2,4,6-Trinitramine (RDX); Ethylene Glycol Dinitrate (EGDN); 2,4,6-Trinitro-Phenylmethyl Nitramine (Tetryl); Glycerol Trinitrate (NG); 2,4,6-Trinitrotoluene (TNT); Pentaerythritol Tetranitrate (PETN); Hexanitro-Stilbene (HNS); Nitroguanidine (Picrite); 2,4,6-Trinitro Phenol (Picric Acid); 2,4-Dinitrotoluene (2,4-DNT); 2,6-Dinitrotoluene (2,6-DNT).
12. * Some reporting limits may be raised due to poor recovery of internal standard or dilution of highly contaminated samples.
13. # Mass spectral match criteria were not fully met, possibly indicating a co-eluting peak that may inflate the result.
14. Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

End of Report BC0923/08

Appendix E

Radiological Results – Soils

Test Report: **Series RG 2194**

Radiochemical Analysis of Soils

Prepared for D Cannon
RPS Planning & Development

September 2008

Radiochemical Analysis of Soils

Client: RPS Planning & Development
Park House
Greyfriars Road
Cardiff
CF10 3AF
United Kingdom

Testing Facility: Harwell Scientifics
551 South Becquerel Avenue
Harwell Science and Innovation Campus
Chilton Didcot
Oxon
OX11 0TB

Laboratory Reference: Series RG 2194

Customer Reference: BH8F-002/D/Trit 1 /0.6/0.6

Quote Number: ENR-HAR-5172

Job Number: E915

Samples Received: 26 August 2008

Analysis Completed: 10 September 2008

Checked by:

Approved by:

Approver's name: Claire Wells

Job Title: Analyst

Report Date: 10 September 2008

Introduction

Please find enclosed the results for the analysis of your samples. The samples were received in good condition.

Experimental

Measurement of Gross Alpha Beta in Non-Aqueous Samples (WI/2005 Issue 10)

A sample is filtered through a glass fibre paper under vacuum. Then, the filters are screened directly for gross alpha and beta by counting on a Berthold LB770 low-level proportional counter for 500 minutes.

The Determination of Total Tritium by combustion (WI/2094 Issue 8)

A sub-sample of known weight was taken from each sample and then combusted in an oxygen rich atmosphere in the presence of a copper oxide catalyst. Under these conditions the hydrogen species were converted to water vapour. These were then selectively trapped in a series of gas-bubblers containing dilute acid. Aliquots of known weight were then assessed for their tritium content by liquid scintillation counting. The tritium activity was corrected for the proportion of the bubbler trapping solution taken and for the weight of sample combusted.

Results for the determination of Gross Alpha/Beta in Soils

Customer Reference	Laboratory Reference	Gross Alpha	Gross Beta
BH8F-002/D/2/1.2/1.2	RG 2217	530 ± 110	620 ± 120
BH8F-002/D/3/1.5/1.5	RG 2218	350 ± 70	820 ± 160
BH8F-002/D/1/0.6/0.6	RG 2219	310 ± 60	680 ± 140
BH8F-003/D/2/2/2	RG 2220	380 ± 80	960 ± 190
BH8F-003/D/3/3/3	RG 2221	470 ± 100	1100 ± 200
BH8F-003/D/1/0.5/0.8	RG 2222	380 ± 80	830 ± 170
BH8S-001/D/3/3/3.5	RG 2223	500 ± 100	1100 ± 200
BH8S-001/D/1/0.5/1	RG 2224	670 ± 130	1000 ± 200
BH8S-001/D/2/1/1.5	RG 2225	430 ± 90	860 ± 170
BH8S-002/D/2.3/2.3	RG 2226	370 ± 80	670 ± 130
BH8S-002/D/1.5/1.5	RG 2227	420 ± 80	690 ± 140
HP8S-002/D/1/0.6/0.6	RG 2228	410 ± 80	730 ± 150
HP8S-003/D/1/0.8/0.8	RG 2230	460 ± 90	750 ± 150
HP8S-004/D/1/0.0/1.2	RG 2231	380 ± 80	630 ± 130
TP8F-001/D/1/0.3/0.3	RG 2237	380 ± 80	590 ± 120
TP8F-001/D/3/1.1/1.1	RG 2238	490 ± 100	1100 ± 200
TP8F-001/D/2/0.75/0.75	RG2239	1300 ± 300	580 ± 120
TP8F-002/D/2/0.6/0.6	RG 2240	620 ± 120	950 ± 190
TP8F-002/D/3/0.9/0.9	RG 2241	810 ± 160	780 ± 160
TP8F-002/D/1/0.3/0.3	RG 2242	330 ± 70	570 ± 110
TP8F-002/D/1/0.3/0.3	RG 2242 D	380 ± 80	740 ± 150
TP8F-003/D/1/0.3/0.3	RG 2244	330 ± 70	930 ± 190
TP8F-003/D/3/1.15/1.15	RG 2245	420 ± 90	960 ± 190
TP8F-003/D/2/0.6/0.6	RG 2246	430 ± 90	560 ± 110
TP8F-004/D/2/0.9/1	RG 2247	560 ± 110	730 ± 150
TP8F-004/D/1/0.1/0.2	RG 2248	320 ± 60	680 ± 140
TP8F-005/D/1/0.1/0.3	RG 2249	400 ± 80	670 ± 130
TP8F-005/D/5/3.1/3.2	RG 2250	620 ± 120	870 ± 170
TP8F-005/D/2/0.9/1	RG 2253	410 ± 80	790 ± 160
TP8F-006/D/2/0.1/0.3	RG 2255	690 ± 140	970 ± 200
TP8F-006/D/3/0.5/0.9	RG 2256	360 ± 70	780 ± 160
TP8F-006/D/4/1.2/1.4	RG 2258	670 ± 130	540 ± 110
TP8F-006/D/6/3.1/3.2	RG 2260	420 ± 80	970 ± 190
TP8F-007/D/1/0.1/0.2	RG 2262	280 ± 60	820 ± 160

Notes:

1. Results are presented as Bq kg⁻¹ per sample as received.
2. Uncertainties are quoted at 2 s.d. based on expanded uncertainties.
3. 'D' represents duplicate.



Results for the determination of Gross Alpha/Beta in Soils

Customer Reference	Laboratory Reference	Gross Alpha	Gross Beta
TP8F-007/D/2/0.5/0.6	RG 2263	390 ± 80	660 ± 130
TP8F-007/D/3/0.8/1	RG 2264	430 ± 90	700 ± 140
TP8F-008/D/2/1.1/1.1	RG 2265	510 ± 100	740 ± 150
TP8F-008/D/1/0.3/0.3	RG 2266	420 ± 80	610 ± 120
TP8F-008/D/3/1.4/1.4	RG 2267	410 ± 80	1100 ± 200
TP8F-009/D/2/0.85/0.85	RG 2269	450 ± 90	960 ± 190
TP8F-009/D/1/0.25/0.25	RG 2270	390 ± 80	920 ± 180
TP8F-009/D/3/2.5/2.5	RG 2271	370 ± 80	1300 ± 300
TP8F-010/D/2/0.7/0.8	RG 2272	320 ± 60	640 ± 130
TP8F-010/D/3/0.9/1	RG 2273	480 ± 100	1000 ± 200
TP8F-010/D/3/0.9/1	RG 2273 D	390 ± 80	1000 ± 200
TP8F-010/D/1/0.1/0.2	RG 2274	380 ± 80	780 ± 160
TP8F-011/D/2/0.8/0.9	RG 2275	700 ± 140	1200 ± 200
TP8F-011/D/3/1/1.3	RG 2276	360 ± 70	780 ± 160
TP8F-011/D/1/0.3/0.3	RG 2277	340 ± 70	500 ± 100
TP8F-012/D//1.2/1.2	RG 2278	390 ± 80	960 ± 190
TP8F-012/D//0.1/0.2	RG 2279	230 ± 50	870 ± 170
TP8F-013/D/2/0.5/1	RG 2280	400 ± 80	920 ± 180
TP8F-013/D/3/0/1.5	RG 2281	590 ± 120	930 ± 190
TP8F-013/D/1/0.3/0.3	RG 2282	570 ± 110	870 ± 170
TP8F-014/D/1/0.3/0.3	RG 2283	640 ± 130	900 ± 180
TP8F-014/D/3/1.5/1.5	RG 2284	670 ± 130	1100 ± 200
TP8F-014/D/2/0.85/0.85	RG 2285	540 ± 110	690 ± 140
TP8F-015/D/2/0.3/0.6	RG 2286	430 ± 90	850 ± 180
TP8F-015/D/1/0/0.3	RG 2287	360 ± 70	1200 ± 200
TP8F-015/D/3/1.3/1.3	RG 2288	360 ± 70	1400 ± 300
TP8F-016/D//0.2/0.4	RG 2289	400 ± 80	970 ± 190
TP8F-016/D//0.9/1.1	RG 2290	480 ± 100	870 ± 180
TP8S-004/D/1/0.6/0.6	RG 2291	500 ± 100	940 ± 190
TP8S-004/D/3/1.4/1.4	RG 2292	700 ± 140	1100 ± 200
TP8S-004/D/2/0.9/0.9	RG 2293	460 ± 90	900 ± 180
TP8S-001/D/3/3/3	RG 2294	530 ± 110	940 ± 190
TP8S-001/D/1/0.9/0.9	RG 2295	660 ± 130	1000 ± 200
TP8S-001/D/2/1.1/1.1	RG 2296	360 ± 70	840 ± 170

Notes:

1. Results are presented as Bq kg⁻¹ per sample as received.
2. Uncertainties are quoted at 2 s.d. based on expanded uncertainties.
3. 'D' represents duplicate.



Results for the determination of Gross Alpha/Beta in Soils

Customer Reference	Laboratory Reference	Gross Alpha	Gross Beta
TP8S-002/D/2/1/1	RG 2297	530 ± 110	560 ± 110
TP8S-002/D/1/0.9/0.9	RG 2298	360 ± 70	740 ± 150
TP8S-002/D/3/3/3	RG 2299	400 ± 80	970 ± 190
TP8S-003/D/2/1.1/1.1	RG 2300	480 ± 100	960 ± 190
TP8S-003/D/1/0.8/0.8	RG 2301	400 ± 80	950 ± 190
TP8S-003/D/3/3/3	RG 2302	480 ± 100	1000 ± 200
BH85-002/0.8m	RG 2303	670 ± 130	990 ± 200
BH85-002/0.8m	RG 2303 D	610 ± 120	1100 ± 200

Notes:

1. Results are presented as Bq kg⁻¹ per sample as received.
2. Uncertainties are quoted at 2 s.d. based on expanded uncertainties.
3. 'D' represents duplicate.

Results for the determination of Tritium in Soils

Customer Reference	Laboratory Reference	Tritium
BH8F-002/D/Trit 1/0.6/0.6	RG 2194	< 50
BH8F-003/D/Trit 1/0.5/0.8	RG 2195	< 50
BH8S-001/D/Trit 1/0.5/1	RG 2197	68 ± 5
HP8S-002/D/Trit 1/0.6/0.6	RG 2198	< 50
HP8S-004/D/Trit 1/0/1.2	RG 2200	< 50
TP8F-001/D/Trit 1/0.3/0.3	RG 2201	< 50
TP8F-002/D/Trit 1/0.3/0.3	RG 2202	< 50
TP8F-004/D/Trit 1/0.2/0.5	RG 2203	< 50
TP8F-005/D/Trit 1/0.1/0.3	RG 2204	< 50
TP8F-008/D/Trit 1/0.3/0.3	RG 2205	< 50
TP8F-010/D/Trit 1/0.1/0.2	RG 2206	< 50
TP8F-012/D/Trit 1/0.1/0.2	RG 2208	< 50
TP8F-015/D/Trit 1/0/0.3	RG 2211	< 50
TP8S-004/D/Trit 1/0.6/0.6	RG 2213	< 50
TP8S-002/D/Trit 1/0.9/0.9	RG 2215	< 50

Notes:

1. Results are presented in Bq kg⁻¹ for samples as received.
2. Uncertainties are quoted at 2SD based on expanded uncertainties.
3. LoD for tritium is 50 Bq kg⁻¹.

Test Report: **Series RG 2379**

Analysis of Gross Alpha/Beta in Soil

Prepared for G Moore
RPS Planning and Development Ltd
September 2008

Analysis of Gross Alpha/Beta in Soil

Client: RPS Planning and Development Ltd
Park House
Greyfriars Road
Cardiff
CF10 3AF
United Kingdom

Testing Facility: Harwell Scientifics
551 South Becquerel Avenue
Harwell Science and Innovation Campus
Chilton Didcot
Oxon
OX11 0TB

Laboratory Reference: Series RG 2379

Customer Reference: BH8F-001 0.0m-0.5m Tub

Quote Number: ENR-HAR-5172

Job Number: E915

Samples Received: 03 September 08

Analysis Completed: 11 September 08

Checked by:

Approved by:

Approver's name: Claire Wells

Job Title: Analyst

Report Date: 11 September 08

Introduction

Please find enclosed the results for the analysis of your samples. The samples were received in good condition.

Experimental

Gross Alpha / Beta in Soils (WI/2005 Issue 10)

An aliquot of the powdered sample was suspended in methanol and then filtered through a glass fibre filter paper under vacuum. After air drying, the sample was weighed and counted on a Berthold LB770 low-level proportional counter for 500 minutes. This method provides minimum detectable concentrations of 0.1 Bq g^{-1} for both gross alpha and gross beta. Only 0.25g of sample is used in the analysis, which is not always a true representation of the whole sample if a large quantity is supplied. The small sample size means that differences in duplicate results can be due to non-homogeneity of the sample.

Results for the Analysis of Gross Alpha/Beta in Soil

Customer Reference	Laboratory Reference	Gross Alpha	Gross Beta
BH8F-001 0.0m-0.5m Tub	RG 2379	530 ± 110	820 ± 160
BH8F-001 0.5m-1.0m Tub	RG 2380	370 ± 80	730 ± 150
BH8F-001 2.0m-2.5m Tub	RG 2381	430 ± 90	910 ± 180
HP8S-004 0.5m-1.0m Tub	RG 2382	310 ± 60	970 ± 190

Notes:

1. Results are presented as Bq per kg^{-1} of sample as received.
2. Uncertainties are quoted at 2 s.d. based on expanded uncertainties.

Test Report: **Series RG 2441**

Radiochemical Analysis of Soils

Graham Moore

RPS Planning & Development

November 2008

Radiochemical Analysis of Soils

Client: RPS Planning & Development
Park House
Greyfriars Road
Cardiff
CF10 3AF
United Kingdom

Testing Facility: Harwell Scientifics
551 South Becquerel Avenue
Harwell Science and Innovation Campus
Chilton Didcot
Oxon
OX11 0TB

Laboratory Reference: Series RG 2441

Customer Reference: BH8F-003

Quote Number: ENR-HAR-5172

Job Number: E915

Samples Received: 10 September 2008

Analysis Completed: 17 November 2008

Checked by:

Approved by:

Approver's name: Garry Prior

Job Title: Principal Analyst

Interim Report Date: 17 November 2008

Introduction

Please find enclosed the results for the analysis of your samples. The samples were received in good condition.

Experimental

Radioactivity Analysis by Gamma Ray Spectrometry (WI/2029 Issue 7)

The measurement technique is based on the use of germanium detectors coupled to a computerized analytical system. The detectors are calibrated for efficiency using a mixed radionuclide standard, which covers an energy range of approximately 120-2000 keV. Efficiencies at lower energies are determined on an individual basis. Stored spectra are analysed using the software FITZPEAKS for photopeak identification and subsequent quantification.

Plutonium-238, 239+240 in Soils and Vegetation (WI/2117 Issue 3)

The appropriate internal yield tracers are added to a dried and ground aliquot of the sample and ashed in a furnace overnight. The sample is then digested in aqua regia. After co-precipitation of the nuclides of interest with iron, ion-exchange chromatography is used to further purify and separate the americium and plutonium, which is then electrodeposited onto stainless-steel discs. Measurement of the americium and plutonium isotopes is carried out by alpha-spectrometry.

Uranium-234, 235 & 238 in Soils by alpha spectrometry (WI/2123 Issue 5)

The samples were digested in acids. After co-precipitation of the nuclides of interest with iron hydroxide, ion-exchange chromatography was used to further purify and separate the uranium, which was then electrodeposited onto stainless-steel discs. Measurement of the uranium isotopes was carried out by alpha-spectrometry.

Polonium-210 by Wet Oxidation (WI/2082 Issue 5)

Polonium-208 was added to the sample as an internal tracer, and then co precipitated with ferric hydroxide. The polonium in the sample was converted to the chloride form by treating with hydrochloric acid. The solution was then spontaneously deposited on a silver disc. This silver disc was measured by alpha spectrometry to determine the ratio of Po-210 to Po-208.

Measurement of Thorium isotopes in Soils and Vegetation (WI/2112 Issue 4)

An aliquot of the homogenized sample was spiked with a thorium-229 internal standard and then ashed at 450 °C. The ashed residue was dissolved in hydrofluoric acids. Thorium was concentrated by co-precipitation with iron (III) hydroxide. Following dissolution of the precipitate using mineral acid, the thorium was purified using ion-exchange chromatography. The purified thorium was electrodeposited onto a stainless-steel disc, the disc was measured by alpha spectrometry.



Results for the determination of Plutonium in soil

Customer Reference	Laboratory Reference	$^{239+240}\text{Pu}$	^{238}Pu
TP8F-001 0.75	RG 2444	< 0.7	< 1
TP8F-002 0.90	RG 2445	< 0.4	< 2
TP8F-011 0.80	RG 2448	< 0.4	< 0.8
TP8F-014 1.50	RG 2449	< 0.3	< 1
TP8S-004 1.40	RG 2452	< 0.6	< 2

Notes:

1. Results are presented as Bq kg^{-1} per sample as received.
2. Uncertainties are quoted at 2 SD based on expanded uncertainties.

Results for the determination of Uranium in soil

Customer Reference	Laboratory Reference	^{238}U	^{235}U	^{234}U
TP8F-001 0.75	RG 2444	18 ± 2	14 ± 2	480 ± 30
TP8F-002 0.90	RG 2445	29 ± 3	6.9 ± 1.4	240 ± 10
TP8F-011 0.80	RG 2448	21 ± 2	3.2 ± 0.8	85 ± 6
TP8F-014 1.50	RG 2449	27 ± 3	< 2	41 ± 4
TP8S-004 1.40	RG 2452	28 ± 3	< 3	45 ± 4

Notes:

1. Results are presented as Bq kg^{-1} per sample as received.
2. Uncertainties are quoted at 2 SD based on expanded uncertainties.

Results for the determination of Thorium in soil

Customer Reference	Laboratory Reference	^{228}Th	^{230}Th	^{232}Th
TP8F-001 0.75	RG 2444	17 ± 2	9.2 ± 1.6	19 ± 3
TP8F-002 0.90	RG 2445	32 ± 4	4.8 ± 1.3	34 ± 4
TP8F-011 0.80	RG 2448	32 ± 4	30 ± 4	35 ± 5
TP8F-014 1.50	RG 2449	41 ± 5	32 ± 5	49 ± 6
TP8S-004 1.40	RG 2452	39 ± 5	33 ± 4	43 ± 5

Notes:

1. Results are presented as Bq kg^{-1} per sample as received.
2. Uncertainties are quoted at 2 SD based on expanded uncertainties.



Results for the determination of Polonium in soil

Customer Reference	Laboratory Reference	²¹⁰ Po
TP8F-001 0.75	RG 2444	12 ± 3
TP8F-002 0.90	RG 2445	24 ± 5
TP8F-011 0.80	RG 2448	26 ± 6
TP8F-014 1.50	RG 2449	21 ± 5
TP8S-004 1.40	RG 2452	26 ± 5

Notes:

1. Results are presented as Bq kg⁻¹ per sample as received.
2. Uncertainties are quoted at 2 SD based on expanded uncertainties.

Gamma Spectrometry Results for Soil Samples

Customer Reference	Laboratory Reference	K-40	Mn-54	Co-60	Zn-65	Zr-95	Cs-134	Cs-137	Eu-152	Tl-208	Pb-210
BH8F-003 3.00	RG 2441	880 ± 50	< 0.8	< 2	< 2	< 2	< 0.7	< 2	< 2	16 ± 2	< 60
BH8S-001 3.00	RG 2442	820 ± 50	< 0.8	< 0.9	< 3	< 3	< 0.7	< 2	< 2	16 ± 2	< 60
TP8F-001 1.10	RG 2443	850 ± 50	< 0.8	< 1	< 2	< 2	< 0.7	< 2	< 2	18 ± 2	< 60
TP8F-008 1.40	RG 2446	350 ± 30	< 0.7	< 0.8	< 2	< 2	< 0.6	< 2	< 1	5.5 ± 1.0	< 40
TP8F-009 2.50	RG 2447	850 ± 50	< 2	< 0.9	< 3	< 3	< 0.7	< 2	< 2	16 ± 2	< 50
TP8F-011 0.80	RG 2448	810 ± 50	< 0.8	< 0.9	< 2	< 2	< 0.8	< 2	< 2	15 ± 2	< 60
TP8F-014 1.50	RG 2449	760 ± 50	< 0.8	< 0.9	< 2	< 2	< 0.7	< 0.9	< 2	15 ± 2	< 60
TP8F-015 0.00	RG 2450	430 ± 40	< 0.9	< 1	< 2	< 2	< 0.8	< 4	< 2	11 ± 2	< 70
TP8F-015 1.30	RG 2451	730 ± 50	< 0.8	< 0.9	< 2	< 2	< 0.7	< 2	< 1	15 ± 2	< 60
TP8S-004 1.40	RG 2452	780 ± 70	< 1	< 2	< 2	< 2	< 2	< 2	< 2	16 ± 2	< 50
BH8S-002 0.80	RG 2453	530 ± 60	< 2	< 3	< 3	< 3	< 2	< 3	< 4	10 ± 3	< 200

Notes:

1. Results are presented as Bq kg⁻¹ sample as received.
2. Detector calibrations are based upon homogeneous standard solutions. For quantification purposes the samples are assumed to be homogeneous.
3. Results marked with a † are not UKAS accredited.
4. Due to the peaks for both ²²⁶Ra and ²³⁵U being at approximately 185keV, individual results cannot be accurately determined by the software. Therefore, please note that these results are guideline figures only, and if an accurate result for either nuclide is required this is better obtained by radiochemical analysis.
5. Results above LoD are reported to 2 significant figures.
6. Uncertainties are quoted at 2SD based on expanded uncertainties.

Gamma Spectrometry Results for Soil Samples

Customer Reference	Laboratory Reference	Pb-212	Bi-212	Pb-214	Bi-214	† Ra-226	Ac-228	Th-234	† U-235	Am-241
BH8F-003 3.00	RG 2441	46 ± 3	65 ± 16	24 ± 3	21 ± 4	< 70	48 ± 6	< 90	< 10	< 2
BH8S-001 3.00	RG 2442	44 ± 3	48 ± 15	25 ± 3	23 ± 4	61 ± 20	47 ± 6	< 90	< 7	< 2
TP8F-001 1.10	RG 2443	48 ± 3	60 ± 15	23 ± 3	22 ± 4	< 80	48 ± 6	< 70	< 20	< 2
TP8F-008 1.40	RG 2446	16 ± 2	< 20	13 ± 2	< 6	< 40	18 ± 4	< 50	< 8	< 2
TP8F-009 2.50	RG 2447	46 ± 3	59 ± 16	25 ± 3	23 ± 4	< 70	47 ± 6	< 70	< 9	< 3
TP8F-011 0.80	RG 2448	42 ± 3	50 ± 14	28 ± 3	25 ± 4	< 60	38 ± 5	< 70	< 20	< 2
TP8F-014 1.50	RG 2449	43 ± 3	48 ± 15	26 ± 3	26 ± 4	< 80	44 ± 6	< 40	< 20	< 2
TP8F-015 0.00	RG 2450	30 ± 3	< 30	24 ± 3	< 8	< 60	32 ± 6	< 80	< 20	< 3
TP8F-015 1.30	RG 2451	43 ± 3	50 ± 15	23 ± 3	24 ± 4	< 60	41 ± 5	< 70	< 7	< 2
TP8S-004 1.40	RG 2452	44 ± 4	< 60	27 ± 3	< 30	< 70	49 ± 7	< 80	< 7	< 3
BH8S-002 0.80	RG 2453	30 ± 5	< 70	< 30	< 30	< 70	< 40	< 200	< 20	< 5

Notes:

1. Results are presented as Bq kg⁻¹ sample as received.
2. Detector calibrations are based upon homogeneous standard solutions. For quantification purposes the samples are assumed to be homogeneous.
3. Results marked with a † are not UKAS accredited.
4. Due to the peaks for both ²²⁶Ra and ²³⁵U being at approximately 185keV, individual results cannot be accurately determined by the software. Therefore, please note that these results are guideline figures only, and if an accurate result for either nuclide is required this is better obtained by radiochemical analysis.
5. Results above LoD are reported to 2 significant figures.
6. Uncertainties are quoted at 2SD based on expanded uncertainties.



Appendix F

Chemical Results – Soils



TEST REPORT

SOIL SAMPLE ANALYSIS



TES Report No. EFS/085458M (Ver. 2)

RPS Group Plc
St Annes House
Oxford Square
Oxford Street
Newbury

Site: Awe Burghfield

The 20 samples described in this report were logged for analysis by TES Bretby on 27-Aug-2008.
The analysis was completed by: 18-Sep-2008

Tests where the accreditation is set to N or No, and any individual data items marked with a * are not UKAS or MCERTS accredited
Any opinions or interpretations expressed herein are outside the scope of any UKAS accreditation held by TES Bretby Laboratories.

The following tables are contained in this report:

Table 1 Main Analysis Results (Pages 2 to 3)
Table of PAH (MS-SIM) (80) Results (Pages 4 to 23)
Table of PCB Congener Results (Page 24)
Table of SVOC Results (Pages 25 to 27)
Table of TPH (Si) banding (std) (Page 28)
GC-FID Chromatograms (Pages 29 to 68)
Table of VOC Results (Pages 69 to 71)
Table of Report Notes (Page 72)

On behalf of
TES Bretby :
J Hannah

J. Hannah
Project Co-ordinator

Date of Issue: 18-Sep-2008

Accreditation Codes: **N** (Not Accredited), **U** (UKAS), **UM** (UKAS & MCERTS)

Tests marked 'A' have been subcontracted to another laboratory.

(NVM) - denotes the sample matrix is dissimilar to matrices upon which the MCERTS validation was based,
and is therefore not accredited for MCERTS.


All results are reported on a dry weight basis at 105°C unless otherwise stated. (except QC samples)
TES Bretby accepts no responsibility for any sampling not carried out by our personnel.


Where individual results are flagged see report notes for for status.

Sample Descriptions

Client : RPS Consultants
Site : Awe Burghfield
Report Number : S08_5458M

Lab ID Number	Client ID	Description
CL/0825197	TP8F-007 0.0-0.6	Brown Stone CLAY
CL/0825198	TP8F-016 0.2-0.4	Brown CLAY
CL/0825199	TP8F-005 0.1-0.3	Brown Stone CLAY
CL/0825200	TP8F-006 0.1-0.3	Brown Stone CLAY
CL/0825201	TP8F-010 0.0-0.8	Brown MADE GROUND
CL/0825202	BH8F-002 0.6	Brown Stone SILT
CL/0825203	BH8F-003 0.5-0.8	Brown Stone CLAY
CL/0825204	TP8F-013 0.5-1.0	Brown Stone CLAY
CL/0825205	TP8F-001 0.75	Brown CLAY
CL/0825206	TP8F-003 0.6	Brown Stone CLAY
CL/0825207	TP8F-008 1.1	Brown Stone CLAY
CL/0825208	TP8F-002 0.6	Brown Stone CLAY
CL/0825209	TP8F-009 0.85	Brown Stone CLAY
CL/0825210	TP8F-004 0.0-1.0	Brown Stone CLAY
CL/0825211	TP8F-007 0.0-1.0	Brown MADE GROUND
CL/0825212	TP8F-011 0.0-0.9	Brown CLAY
CL/0825213	TP8F-012 0.0-0.7	Brown CLAY
CL/0825214	TP8F-012 1.2	Brown CLAY
CL/0825215	TP8S-004 0.9	Brown CLAY
CL/0825216	TP8F-014 0.85	Brown Stone CLAY

TES ID Number	Client Sample Description	Units :	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	%	mg/kg	ug/kg	pH Units	
		Method Codes :	ICPACIDS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	TMSS	TPHUSSI	VOCSW8100	WLSLM3
		Method Reporting Limits :	20	2	0.1	3	3	3.5	0.10	2.5	0.5	2.0	19.5	0.2	10.0	5	
		Accreditation Code:	UM	UM	U	UM	UM	UM	U	UM	U	U	UM	U			U
		SO4-- (acid sol)	Arsenic (MS)	Cadmium (MS)	Chromium (MS)	Copper (MS)	Lead (MS)	Mercury (MS)	Nickel (MS)	Selenium (MS)	Vanadium (MS)	Zinc (MS)	Tot. Moisture @ 105C	TPH by GC/FID (AR/SI)	VOC by GC/MS (8100)	pH units	
0825202	BH8F-002 0.6	338	7.6	<0.1	15.8†	10.5	23	0.14	11.4	<0.5	28.4	42.5	19.8	Req		8.0	
0825203	BH8F-003 0.5-0.8	375	9.5	0.17	36†	18.9	15.6	<0.1	33.6	<0.5	58.8	56.1	18.8	Req		7.9	
0825205	TP8F-001 0.75	78	14.1	0.14	42.9†	20.5	16.4	<0.1	35.7	0.6	67.3	75.4	22.5	Req		7.8	
0825208	TP8F-002 0.6	36	11.3	<0.1	22.1†	7.8	10.6	<0.1	12	<0.5	40.1	29.1	15.3	Req		7.9	
0825206	TP8F-003 0.6	74	9.4	<0.1	18.1†	6.5	10.5	<0.1	11.2	<0.5	35	31.3	15.6	Req		7.8	
0825210	TP8F-004 0.0-1.0	216	7.7	<0.1	20.7†	12.1	20.7	<0.1	16.6	<0.6	33.5	47.9	34.5	Req		8.1	
0825199	TP8F-005 0.1-0.3	422	9.9	0.2	29.4†	15.2	45.8	0.1	20	0.8	48	68	22.8	Req		7.6	
0825200	TP8F-006 0.1-0.3	262	12.2	0.17	37†	21.7	31.8	0.1	34.1	0.9	59.1	81.9	23.0	Req		7.6	
0825197	TP8F-007 0.0-0.6	462	10.3	0.2	21.2†	18.6	56	0.15	17.8	0.6	38.3	131	25.1	Req		7.5	
0825211	TP8F-007 0.0-1.0	363	9.9	0.17	23.6†	21.4	79.4	0.17	16.2	0.5	36.3	84.9	23.6	Req		7.7	
0825207	TP8F-008 1.1	24	12.9	0.12	20.2†	14.1	10.8	<0.1	21.2	<0.5	39.7	35	16.8	Req		7.2	
0825209	TP8F-009 0.85	30	11.4	<0.1	31.0†	13.5	13.6	<0.1	16	<0.6	49.4	45.2	22.4	Req	Req	7.1	
0825201	TP8F-010 0.0-0.8	397	9.6	0.1	17.3†	12.9	30.9	<0.1	15.2	<0.5	32.7	45	20.5	Req		8.0	
0825212	TP8F-011 0.0-0.9	661	11.2	0.18	34.9†	19.4	15.5	<0.1	36.9	1	58.9	55.4	24.0	Req		8.2	
0825213	TP8F-012 0.0-0.7	1690	12.1	0.23	31.9†	24.3	41.9	0.14	26.9	<0.7	52.6	83.9	35.6	Req	Req	7.6	
0825214	TP8F-012 1.2	140	9.8	0.11	38.3†	24.7	17.2	<0.1	34.4	0.9	56.3	70.9	23.1	Req	Req	8.2	
0825204	TP8F-013 0.5-1.0	183	11.3	0.14	24.6†	18.6	25.4	<0.1	22.2	<0.5	42.4	60.3	18.9	Req		8.1	
0825216	TP8F-014 0.85	38	19.3	<0.1	24.1†	12.8	12.6	<0.1	17.5	0.6	46.4	38.1	21.2	Req		7.7	
0825198	TP8F-016 0.2-0.4	121	11.4	0.12	37.0†	24	20.3	0.11	33.3	<0.5	57	73	20.8	Req		8.2	
0825215	TP8S-004 0.9	193	11.1	<0.1	32†	18.2	14	<0.1	33.2	<0.5	49.4	58.3	22.4	Req		8.2	
TES Bretby PO Box 100, Bretby Business Park, Burton-on-Trent, Staffordshire, DE15 0XD Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422		Client Name	RPS Consultants								Soils Sample Analysis						
		Contact	Mr G Moore								Date Printed	18-Sep-08					
		Awe Burghfield								Report Number	EFS/085458M						
										Table Number	1						
																	

TES ID Number	Client Sample Description	Units :														
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	ug/kg		mg/kg	mg/kg	% M/M	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
		ICPBOR	ICPMAJ	ICPMAJ	KONECL	PAHMSUS	PCBUSECD	SEN9	SFAS	SVOCMSUS	WLSM59	PHEHPLC	PHEHPLC	PHEHPLC	PHEHPLC	PHEHPLC
		Method Codes :	Method Reporting Limits :	Method Reporting Limits :	Method Reporting Limits :	Method Reporting Limits :	Method Reporting Limits :	Method Reporting Limits :	Method Reporting Limits :	Method Reporting Limits :	Method Reporting Limits :	Method Reporting Limits :	Method Reporting Limits :	Method Reporting Limits :	Method Reporting Limits :	Method Reporting Limits :
Accreditation Code:																
		N	N	N	N			N	N		U	U	U	U	U	
		Boron (H2O Soluble)	Barium	Beryllium	Chloride:	PAH by MS:17(0.08)	PCB (7 Congeners)	Asbestos (screening)	Sulphide as S (AR)	SVOC (AR)	F.O.C. %	Phenol	Cresols	Xylenols	Trimethylphenols	Total Phenols
0825202	BH8F-002 0.6	<0.5	<0.01	<0.01	50	Req		NBFO	<0.6		1.67					
0825203	BH8F-003 0.5-0.8	<0.5	4.9	0.22	23	Req		NBFO	<0.6		0.43					
0825205	TP8F-001 0.75	<0.5	19.7	0.8	49	Req		NBFO	<0.6		0.3					
0825208	TP8F-002 0.6	<0.5	<0.01	<0.01	23	Req		NBFO	<0.6		0.29					
0825206	TP8F-003 0.6	<0.5	<0.01	<0.01	21	Req		NBFO	<0.6		0.39					
0825210	TP8F-004 0.0-1.0	<0.6	8	<0.01	26	Req		NBFO	<0.8		1.36					
0825199	TP8F-005 0.1-0.3	<0.5	239.5	<0.01	37	Req		NBFO	<0.6		1.9					
0825200	TP8F-006 0.1-0.3	<0.5	21.2	0.09	28	Req		NBFO	<0.6		1.18					
0825197	TP8F-007 0.0-0.6	0.9	27.4	<0.01	774	Req		NBFO	<0.7		2.72					
0825211	TP8F-007 0.0-1.0	0.9	46	<0.01	25	Req		NBFO	<0.7		2.09					
0825207	TP8F-008 1.1	<0.5	<0.01	0.04	9.2	Req		NBFO	<0.6		0.18					
0825209	TP8F-009 0.85	<0.6	<0.01	<0.01	12.3	Req		NBFO	<0.6	Req	0.27					
0825201	TP8F-010 0.0-0.8	<0.5	<0.01	<0.01	38	Req		NBFO	<0.6		1.67					
0825212	TP8F-011 0.0-0.9	<0.6	2.7	0.33	43	Req		NBFO	<0.7		0.56					
0825213	TP8F-012 0.0-0.7	3.6	2	<0.01	81	Req	Req	NBFO	44.6	Req	3.14	<0.5	<0.5	<0.5	<0.5	<1.9
0825214	TP8F-012 1.2	<0.5	<0.01	0.3	19	Req	Req	NBFO	<0.7	Req	0.38	<0.4	<0.4	<0.4	<0.4	<1.6
0825204	TP8F-013 0.5-1.0	<0.5	2	<0.01	41	Req		NBFO	<0.6		0.91					
0825216	TP8F-014 0.85	<0.6	<0.01	0.05	23	Req		NBFO	<0.6		0.34					
0825198	TP8F-016 0.2-0.4	0.6	13.6	0.13	27	Req		NBFO	<0.6		0.46					
0825215	TP8S-004 0.9	<0.5	<0.01	<0.01	18	Req		NBFO	<0.6		0.5					
TES Bretby PO Box 100, Bretby Business Park, Burton-on-Trent, Staffordshire, DE15 0XD Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422		Client Name		RPS Consultants						Soils Sample Analysis						
		Contact		Mr G Moore						Date Printed		18-Sep-08				
		Awe Burghfield						Report Number		EFS/085458M						
								Table Number		1						
																

Polycyclic Aromatic Hydrocarbons GC/MS (SIM)

Customer and Site Details:	RPS Consultants: Awe Burghfield	
Sample Details:	TP8F-007 0.0-0.6	Job Number: S08_5458M
LIMS ID Number:	CL0825197	Date Booked in: 27-Aug-08
QC Batch Number:	3127	Date Extracted: 02-Sep-08
Quantitation File:	Initial Calibration	Date Analysed: 06-Sep-08
Directory:	905PAH.MS10\	Matrix: Soil
Dilution:	1.0	Ext Method: Ultrasonic

Accredited?: No

Target Compounds	CAS #	R.T. (min)	Concentration mg/kg	% Fit	Accr. code
Naphthalene	91-20-3	-	< 0.11	-	N
Acenaphthylene	208-96-8	-	< 0.11	-	N
Acenaphthene	83-32-9	-	< 0.11	-	N
Fluorene	86-73-7	-	< 0.11	-	N
Phenanthrene	85-01-8	5.40	0.25	87	N
Anthracene	120-12-7	5.46	0.15	86	N
Fluoranthene	206-44-0	7.06	0.73	94	N
Pyrene	129-00-0	7.36	0.60	99	N
Benzo[a]anthracene	56-55-3	9.20	0.36	90	N
Chrysene	218-01-9	9.26	0.40	96	N
Benzo[b]fluoranthene	205-99-2	10.77	0.29	98	N
Benzo[k]fluoranthene	207-08-9	10.79	0.33	94	N
Benzo[a]pyrene	50-32-8	11.18	0.40	94	N
Indeno[1,2,3-cd]pyrene	193-39-5	12.55	0.25	95	N
Dibenzo[a,h]anthracene	53-70-3	-	< 0.11	-	N
Benzo[g,h,i]perylene	191-24-2	12.82	0.20	94	N
Coronene	191-07-1	-	< 0.11	-	N
Total (USEPA16) PAHs	-	-	< 4.51	-	N

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	109
Acenaphthene-d10	124
Phenanthrene-d10	124
Chrysene-d12	123
Perylene-d12	124

Surrogates	% Rec
Nitrobenzene-d5	N.D
2-Fluorobiphenyl	93
Terphenyl-d14	98

Concentrations are reported on a dry weight basis.

The Total PAH result is the sum of non-rounded individual PAH results and therefore may differ to the sum of the rounded individual PAH results printed above. By convention, where any one or more result is a "less than", the total is expressed as a "less than" and includes the "less than" concentration within the total.

Polycyclic Aromatic Hydrocarbons GC/MS (SIM)

Customer and Site Details:	RPS Consultants: Awe Burghfield	
Sample Details:	TP8F-016 0.2-0.4	Job Number: S08_5458M
LIMS ID Number:	CL0825198	Date Booked in: 27-Aug-08
QC Batch Number:	3127	Date Extracted: 02-Sep-08
Quantitation File:	Initial Calibration	Date Analysed: 06-Sep-08
Directory:	905PAH.MS10\	Matrix: Soil
Dilution:	1.0	Ext Method: Ultrasonic

Accredited?: No

Target Compounds	CAS #	R.T. (min)	Concentration mg/kg	% Fit	Accr. code
Naphthalene	91-20-3	-	< 0.10	-	N
Acenaphthylene	208-96-8	-	< 0.10	-	N
Acenaphthene	83-32-9	-	< 0.10	-	N
Fluorene	86-73-7	-	< 0.10	-	N
Phenanthrene	85-01-8	-	< 0.10	-	N
Anthracene	120-12-7	-	< 0.10	-	N
Fluoranthene	206-44-0	-	< 0.10	-	N
Pyrene	129-00-0	-	< 0.10	-	N
Benzo[a]anthracene	56-55-3	-	< 0.10	-	N
Chrysene	218-01-9	-	< 0.10	-	N
Benzo[b]fluoranthene	205-99-2	-	< 0.10	-	N
Benzo[k]fluoranthene	207-08-9	-	< 0.10	-	N
Benzo[a]pyrene	50-32-8	-	< 0.10	-	N
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.10	-	N
Dibenzo[a,h]anthracene	53-70-3	-	< 0.10	-	N
Benzo[g,h,i]perylene	191-24-2	-	< 0.10	-	N
Coronene	191-07-1	-	< 0.10	-	N
Total (USEPA16) PAHs	-	-	< 1.62	-	N

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	105
Acenaphthene-d10	120
Phenanthrene-d10	120
Chrysene-d12	116
Perylene-d12	116

Surrogates	% Rec
Nitrobenzene-d5	N.D
2-Fluorobiphenyl	93
Terphenyl-d14	99

Concentrations are reported on a dry weight basis.

The Total PAH result is the sum of non-rounded individual PAH results and therefore may differ to the sum of the rounded individual PAH results printed above. By convention, where any one or more result is a "less than", the total is expressed as a "less than" and includes the "less than" concentration within the total.

Polycyclic Aromatic Hydrocarbons GC/MS (SIM)

Customer and Site Details:	RPS Consultants: Awe Burghfield	
Sample Details:	TP8F-005 0.1-0.3	Job Number: S08_5458M
LIMS ID Number:	CL0825199	Date Booked in: 27-Aug-08
QC Batch Number:	3127	Date Extracted: 02-Sep-08
Quantitation File:	Initial Calibration	Date Analysed: 06-Sep-08
Directory:	905PAH.MS10\	Matrix: Soil
Dilution:	1.0	Ext Method: Ultrasonic

Accredited?: No

Target Compounds	CAS #	R.T. (min)	Concentration mg/kg	% Fit	Accr. code
Naphthalene	91-20-3	-	< 0.10	-	N
Acenaphthylene	208-96-8	-	< 0.10	-	N
Acenaphthene	83-32-9	-	< 0.10	-	N
Fluorene	86-73-7	-	< 0.10	-	N
Phenanthrene	85-01-8	-	< 0.10	-	N
Anthracene	120-12-7	-	< 0.10	-	N
Fluoranthene	206-44-0	7.06	0.10	89	N
Pyrene	129-00-0	7.36	0.12	95	N
Benzo[a]anthracene	56-55-3	-	< 0.10	-	N
Chrysene	218-01-9	9.26	0.12	93	N
Benzo[b]fluoranthene	205-99-2	-	< 0.10	-	N
Benzo[k]fluoranthene	207-08-9	10.78	0.12	97	N
Benzo[a]pyrene	50-32-8	11.18	0.12	94	N
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.10	-	N
Dibenzo[a,h]anthracene	53-70-3	-	< 0.10	-	N
Benzo[g,h,i]perylene	191-24-2	-	< 0.10	-	N
Coronene	191-07-1	-	< 0.10	-	N
Total (USEPA16) PAHs	-	-	< 1.74	-	N

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	88
Acenaphthene-d10	115
Phenanthrene-d10	114
Chrysene-d12	109
Perylene-d12	108

Surrogates	% Rec
Nitrobenzene-d5	N.D
2-Fluorobiphenyl	94
Terphenyl-d14	102

Concentrations are reported on a dry weight basis.

The Total PAH result is the sum of non-rounded individual PAH results and therefore may differ to the sum of the rounded individual PAH results printed above. By convention, where any one or more result is a "less than", the total is expressed as a "less than" and includes the "less than" concentration within the total.

Polycyclic Aromatic Hydrocarbons GC/MS (SIM)

Customer and Site Details:	RPS Consultants: Awe Burghfield	
Sample Details:	TP8F-006 0.1-0.3	Job Number: S08_5458M
LIMS ID Number:	CL0825200	Date Booked in: 27-Aug-08
QC Batch Number:	3127	Date Extracted: 02-Sep-08
Quantitation File:	Initial Calibration	Date Analysed: 06-Sep-08
Directory:	905PAH.MS10\	Matrix: Soil
Dilution:	1.0	Ext Method: Ultrasonic

Accredited?: No

Target Compounds	CAS #	R.T. (min)	Concentration mg/kg	% Fit	Accr. code
Naphthalene	91-20-3	-	< 0.10	-	N
Acenaphthylene	208-96-8	-	< 0.10	-	N
Acenaphthene	83-32-9	-	< 0.10	-	N
Fluorene	86-73-7	-	< 0.10	-	N
Phenanthrene	85-01-8	-	< 0.10	-	N
Anthracene	120-12-7	-	< 0.10	-	N
Fluoranthene	206-44-0	-	< 0.10	-	N
Pyrene	129-00-0	-	< 0.10	-	N
Benzo[a]anthracene	56-55-3	-	< 0.10	-	N
Chrysene	218-01-9	-	< 0.10	-	N
Benzo[b]fluoranthene	205-99-2	-	< 0.10	-	N
Benzo[k]fluoranthene	207-08-9	-	< 0.10	-	N
Benzo[a]pyrene	50-32-8	-	< 0.10	-	N
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.10	-	N
Dibenzo[a,h]anthracene	53-70-3	-	< 0.10	-	N
Benzo[g,h,i]perylene	191-24-2	-	< 0.10	-	N
Coronene	191-07-1	-	< 0.10	-	N
Total (USEPA16) PAHs	-	-	< 1.66	-	N

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	91
Acenaphthene-d10	109
Phenanthrene-d10	107
Chrysene-d12	105
Perylene-d12	107

Surrogates	% Rec
Nitrobenzene-d5	N.D
2-Fluorobiphenyl	93
Terphenyl-d14	98

Concentrations are reported on a dry weight basis.

The Total PAH result is the sum of non-rounded individual PAH results and therefore may differ to the sum of the rounded individual PAH results printed above. By convention, where any one or more result is a "less than", the total is expressed as a "less than" and includes the "less than" concentration within the total.

Polycyclic Aromatic Hydrocarbons GC/MS (SIM)

Customer and Site Details:	RPS Consultants: Awe Burghfield	
Sample Details:	TP8F-010 0.0-0.8	Job Number: S08_5458M
LIMS ID Number:	CL0825201	Date Booked in: 27-Aug-08
QC Batch Number:	3127	Date Extracted: 02-Sep-08
Quantitation File:	Initial Calibration	Date Analysed: 06-Sep-08
Directory:	905PAH.MS10\	Matrix: Soil
Dilution:	1.0	Ext Method: Ultrasonic

Accredited?: No

Target Compounds	CAS #	R.T. (min)	Concentration mg/kg	% Fit	Accr. code
Naphthalene	91-20-3	-	< 0.10	-	N
Acenaphthylene	208-96-8	-	< 0.10	-	N
Acenaphthene	83-32-9	-	< 0.10	-	N
Fluorene	86-73-7	-	< 0.10	-	N
Phenanthrene	85-01-8	-	< 0.10	-	N
Anthracene	120-12-7	-	< 0.10	-	N
Fluoranthene	206-44-0	7.06	0.24	91	N
Pyrene	129-00-0	7.36	0.19	93	N
Benzo[a]anthracene	56-55-3	9.20	0.11	91	N
Chrysene	218-01-9	9.26	0.14	97	N
Benzo[b]fluoranthene	205-99-2	10.78	0.14	94	N
Benzo[k]fluoranthene	207-08-9	-	< 0.10	-	N
Benzo[a]pyrene	50-32-8	11.18	0.10	92	N
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.10	-	N
Dibenzo[a,h]anthracene	53-70-3	-	< 0.10	-	N
Benzo[g,h,i]perylene	191-24-2	-	< 0.10	-	N
Coronene	191-07-1	-	< 0.10	-	N
Total (USEPA16) PAHs	-	-	< 1.95	-	N

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	84
Acenaphthene-d10	108
Phenanthrene-d10	106
Chrysene-d12	104
Perylene-d12	105

Surrogates	% Rec
Nitrobenzene-d5	N.D
2-Fluorobiphenyl	91
Terphenyl-d14	96

Concentrations are reported on a dry weight basis.

The Total PAH result is the sum of non-rounded individual PAH results and therefore may differ to the sum of the rounded individual PAH results printed above. By convention, where any one or more result is a "less than", the total is expressed as a "less than" and includes the "less than" concentration within the total.

Polycyclic Aromatic Hydrocarbons GC/MS (SIM)

Customer and Site Details:	RPS Consultants: Awe Burghfield	
Sample Details:	BH8F-002 0.6	Job Number: S08_5458M
LIMS ID Number:	CL0825202	Date Booked in: 27-Aug-08
QC Batch Number:	3127	Date Extracted: 02-Sep-08
Quantitation File:	Initial Calibration	Date Analysed: 06-Sep-08
Directory:	905PAH.MS10\	Matrix: Soil
Dilution:	1.0	Ext Method: Ultrasonic

Accredited?: No

Target Compounds	CAS #	R.T. (min)	Concentration mg/kg	% Fit	Accr. code
Naphthalene	91-20-3	-	< 0.10	-	N
Acenaphthylene	208-96-8	-	< 0.10	-	N
Acenaphthene	83-32-9	-	< 0.10	-	N
Fluorene	86-73-7	-	< 0.10	-	N
Phenanthrene	85-01-8	-	< 0.10	-	N
Anthracene	120-12-7	-	< 0.10	-	N
Fluoranthene	206-44-0	7.06	0.11	90	N
Pyrene	129-00-0	7.37	0.10	93	N
Benzo[a]anthracene	56-55-3	-	< 0.10	-	N
Chrysene	218-01-9	-	< 0.10	-	N
Benzo[b]fluoranthene	205-99-2	-	< 0.10	-	N
Benzo[k]fluoranthene	207-08-9	-	< 0.10	-	N
Benzo[a]pyrene	50-32-8	-	< 0.10	-	N
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.10	-	N
Dibenzo[a,h]anthracene	53-70-3	-	< 0.10	-	N
Benzo[g,h,i]perylene	191-24-2	-	< 0.10	-	N
Coronene	191-07-1	-	< 0.10	-	N
Total (USEPA16) PAHs	-	-	< 1.61	-	N

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	91
Acenaphthene-d10	110
Phenanthrene-d10	112
Chrysene-d12	109
Perylene-d12	110

Surrogates	% Rec
Nitrobenzene-d5	N.D
2-Fluorobiphenyl	93
Terphenyl-d14	96

Concentrations are reported on a dry weight basis.

The Total PAH result is the sum of non-rounded individual PAH results and therefore may differ to the sum of the rounded individual PAH results printed above. By convention, where any one or more result is a "less than", the total is expressed as a "less than" and includes the "less than" concentration within the total.

Polycyclic Aromatic Hydrocarbons GC/MS (SIM)

Customer and Site Details:	RPS Consultants: Awe Burghfield	
Sample Details:	BH8F-003 0.5-0.8	Job Number: S08_5458M
LIMS ID Number:	CL0825203	Date Booked in: 27-Aug-08
QC Batch Number:	3127	Date Extracted: 02-Sep-08
Quantitation File:	Initial Calibration	Date Analysed: 06-Sep-08
Directory:	905PAH.MS10\	Matrix: Soil
Dilution:	1.0	Ext Method: Ultrasonic

Accredited?: No

Target Compounds	CAS #	R.T. (min)	Concentration mg/kg	% Fit	Accr. code
Naphthalene	91-20-3	-	< 0.10	-	N
Acenaphthylene	208-96-8	-	< 0.10	-	N
Acenaphthene	83-32-9	-	< 0.10	-	N
Fluorene	86-73-7	-	< 0.10	-	N
Phenanthrene	85-01-8	-	< 0.10	-	N
Anthracene	120-12-7	-	< 0.10	-	N
Fluoranthene	206-44-0	-	< 0.10	-	N
Pyrene	129-00-0	-	< 0.10	-	N
Benzo[a]anthracene	56-55-3	-	< 0.10	-	N
Chrysene	218-01-9	-	< 0.10	-	N
Benzo[b]fluoranthene	205-99-2	-	< 0.10	-	N
Benzo[k]fluoranthene	207-08-9	-	< 0.10	-	N
Benzo[a]pyrene	50-32-8	-	< 0.10	-	N
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.10	-	N
Dibenzo[a,h]anthracene	53-70-3	-	< 0.10	-	N
Benzo[g,h,i]perylene	191-24-2	-	< 0.10	-	N
Coronene	191-07-1	-	< 0.10	-	N
Total (USEPA16) PAHs	-	-	< 1.58	-	N

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	94
Acenaphthene-d10	110
Phenanthrene-d10	111
Chrysene-d12	112
Perylene-d12	113

Surrogates	% Rec
Nitrobenzene-d5	N.D
2-Fluorobiphenyl	94
Terphenyl-d14	98

Concentrations are reported on a dry weight basis.

The Total PAH result is the sum of non-rounded individual PAH results and therefore may differ to the sum of the rounded individual PAH results printed above. By convention, where any one or more result is a "less than", the total is expressed as a "less than" and includes the "less than" concentration within the total.

Polycyclic Aromatic Hydrocarbons GC/MS (SIM)

Customer and Site Details:	RPS Consultants: Awe Burghfield	
Sample Details:	TP8F-013 0.5-1.0	Job Number: S08_5458M
LIMS ID Number:	CL0825204	Date Booked in: 27-Aug-08
QC Batch Number:	3127	Date Extracted: 02-Sep-08
Quantitation File:	Initial Calibration	Date Analysed: 08-Sep-08
Directory:	908PAH.MS10\	Matrix: Soil
Dilution:	1.0	Ext Method: Ultrasonic

Accredited?: No

Target Compounds	CAS #	R.T. (min)	Concentration mg/kg	% Fit	Accr. code
Naphthalene	91-20-3	-	< 0.10	-	N
Acenaphthylene	208-96-8	-	< 0.10	-	N
Acenaphthene	83-32-9	-	< 0.10	-	N
Fluorene	86-73-7	-	< 0.10	-	N
Phenanthrene	85-01-8	-	< 0.10	-	N
Anthracene	120-12-7	-	< 0.10	-	N
Fluoranthene	206-44-0	6.90	0.10	93	N
Pyrene	129-00-0	7.20	0.11	94	N
Benzo[a]anthracene	56-55-3	-	< 0.10	-	N
Chrysene	218-01-9	9.09	0.10	94	N
Benzo[b]fluoranthene	205-99-2	10.59	0.17	98	N
Benzo[k]fluoranthene	207-08-9	10.62	0.17	95	N
Benzo[a]pyrene	50-32-8	10.99	0.21	96	N
Indeno[1,2,3-cd]pyrene	193-39-5	12.36	0.21	92	N
Dibenzo[a,h]anthracene	53-70-3	12.42	0.17	96	N
Benzo[g,h,i]perylene	191-24-2	12.62	0.21	93	N
Coronene	191-07-1	14.15	0.16	94	N
Total (USEPA16) PAHs	-	-	< 2.17	-	N

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	102
Acenaphthene-d10	110
Phenanthrene-d10	109
Chrysene-d12	115
Perylene-d12	124

Surrogates	% Rec
Nitrobenzene-d5	N.D
2-Fluorobiphenyl	94
Terphenyl-d14	97

Concentrations are reported on a dry weight basis.

The Total PAH result is the sum of non-rounded individual PAH results and therefore may differ to the sum of the rounded individual PAH results printed above. By convention, where any one or more result is a "less than", the total is expressed as a "less than" and includes the "less than" concentration within the total.

Polycyclic Aromatic Hydrocarbons GC/MS (SIM)

Customer and Site Details:	RPS Consultants: Awe Burghfield	
Sample Details:	TP8F-001 0.75	Job Number: S08_5458M
LIMS ID Number:	CL0825205	Date Booked in: 27-Aug-08
QC Batch Number:	3127	Date Extracted: 02-Sep-08
Quantitation File:	Initial Calibration	Date Analysed: 08-Sep-08
Directory:	908PAH.MS10\	Matrix: Soil
Dilution:	1.0	Ext Method: Ultrasonic

Accredited?: No

Target Compounds	CAS #	R.T. (min)	Concentration mg/kg	% Fit	Accr. code
Naphthalene	91-20-3	-	< 0.10	-	N
Acenaphthylene	208-96-8	-	< 0.10	-	N
Acenaphthene	83-32-9	-	< 0.10	-	N
Fluorene	86-73-7	-	< 0.10	-	N
Phenanthrene	85-01-8	-	< 0.10	-	N
Anthracene	120-12-7	-	< 0.10	-	N
Fluoranthene	206-44-0	-	< 0.10	-	N
Pyrene	129-00-0	-	< 0.10	-	N
Benzo[a]anthracene	56-55-3	-	< 0.10	-	N
Chrysene	218-01-9	-	< 0.10	-	N
Benzo[b]fluoranthene	205-99-2	-	< 0.10	-	N
Benzo[k]fluoranthene	207-08-9	-	< 0.10	-	N
Benzo[a]pyrene	50-32-8	-	< 0.10	-	N
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.10	-	N
Dibenzo[a,h]anthracene	53-70-3	-	< 0.10	-	N
Benzo[g,h,i]perylene	191-24-2	-	< 0.10	-	N
Coronene	191-07-1	-	< 0.10	-	N
Total (USEPA16) PAHs	-	-	< 1.65	-	N

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	108
Acenaphthene-d10	114
Phenanthrene-d10	110
Chrysene-d12	113
Perylene-d12	119

Surrogates	% Rec
Nitrobenzene-d5	N.D
2-Fluorobiphenyl	93
Terphenyl-d14	96

Concentrations are reported on a dry weight basis.

The Total PAH result is the sum of non-rounded individual PAH results and therefore may differ to the sum of the rounded individual PAH results printed above. By convention, where any one or more result is a "less than", the total is expressed as a "less than" and includes the "less than" concentration within the total.

Polycyclic Aromatic Hydrocarbons GC/MS (SIM)

Customer and Site Details:	RPS Consultants: Awe Burghfield	
Sample Details:	TP8F-003 0.6	Job Number: S08_5458M
LIMS ID Number:	CL0825206	Date Booked in: 27-Aug-08
QC Batch Number:	3127	Date Extracted: 02-Sep-08
Quantitation File:	Initial Calibration	Date Analysed: 08-Sep-08
Directory:	908PAH.MS10\	Matrix: Soil
Dilution:	1.0	Ext Method: Ultrasonic

Accredited?: No

Target Compounds	CAS #	R.T. (min)	Concentration mg/kg	% Fit	Accr. code
Naphthalene	91-20-3	-	< 0.09	-	N
Acenaphthylene	208-96-8	-	< 0.09	-	N
Acenaphthene	83-32-9	-	< 0.09	-	N
Fluorene	86-73-7	-	< 0.09	-	N
Phenanthrene	85-01-8	-	< 0.09	-	N
Anthracene	120-12-7	-	< 0.09	-	N
Fluoranthene	206-44-0	-	< 0.09	-	N
Pyrene	129-00-0	-	< 0.09	-	N
Benzo[a]anthracene	56-55-3	-	< 0.09	-	N
Chrysene	218-01-9	-	< 0.09	-	N
Benzo[b]fluoranthene	205-99-2	-	< 0.09	-	N
Benzo[k]fluoranthene	207-08-9	-	< 0.09	-	N
Benzo[a]pyrene	50-32-8	-	< 0.09	-	N
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.09	-	N
Dibenzo[a,h]anthracene	53-70-3	-	< 0.09	-	N
Benzo[g,h,i]perylene	191-24-2	-	< 0.09	-	N
Coronene	191-07-1	-	< 0.09	-	N
Total (USEPA16) PAHs	-	-	< 1.52	-	N

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	98
Acenaphthene-d10	112
Phenanthrene-d10	103
Chrysene-d12	108
Perylene-d12	120

Surrogates	% Rec
Nitrobenzene-d5	N.D
2-Fluorobiphenyl	89
Terphenyl-d14	92

Concentrations are reported on a dry weight basis.

The Total PAH result is the sum of non-rounded individual PAH results and therefore may differ to the sum of the rounded individual PAH results printed above. By convention, where any one or more result is a "less than", the total is expressed as a "less than" and includes the "less than" concentration within the total.

Polycyclic Aromatic Hydrocarbons GC/MS (SIM)

Customer and Site Details:	RPS Consultants: Awe Burghfield	
Sample Details:	TP8F-008 1.1	Job Number: S08_5458M
LIMS ID Number:	CL0825207	Date Booked in: 27-Aug-08
QC Batch Number:	3127	Date Extracted: 02-Sep-08
Quantitation File:	Initial Calibration	Date Analysed: 08-Sep-08
Directory:	908PAH.MS10\	Matrix: Soil
Dilution:	1.0	Ext Method: Ultrasonic

Accredited?: No

Target Compounds	CAS #	R.T. (min)	Concentration mg/kg	% Fit	Accr. code
Naphthalene	91-20-3	-	< 0.10	-	N
Acenaphthylene	208-96-8	-	< 0.10	-	N
Acenaphthene	83-32-9	-	< 0.10	-	N
Fluorene	86-73-7	-	< 0.10	-	N
Phenanthrene	85-01-8	-	< 0.10	-	N
Anthracene	120-12-7	-	< 0.10	-	N
Fluoranthene	206-44-0	-	< 0.10	-	N
Pyrene	129-00-0	-	< 0.10	-	N
Benzo[a]anthracene	56-55-3	-	< 0.10	-	N
Chrysene	218-01-9	-	< 0.10	-	N
Benzo[b]fluoranthene	205-99-2	-	< 0.10	-	N
Benzo[k]fluoranthene	207-08-9	-	< 0.10	-	N
Benzo[a]pyrene	50-32-8	-	< 0.10	-	N
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.10	-	N
Dibenzo[a,h]anthracene	53-70-3	-	< 0.10	-	N
Benzo[g,h,i]perylene	191-24-2	-	< 0.10	-	N
Coronene	191-07-1	-	< 0.10	-	N
Total (USEPA16) PAHs	-	-	< 1.54	-	N

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	104
Acenaphthene-d10	111
Phenanthrene-d10	105
Chrysene-d12	114
Perylene-d12	124

Surrogates	% Rec
Nitrobenzene-d5	N.D
2-Fluorobiphenyl	90
Terphenyl-d14	92

Concentrations are reported on a dry weight basis.

The Total PAH result is the sum of non-rounded individual PAH results and therefore may differ to the sum of the rounded individual PAH results printed above. By convention, where any one or more result is a "less than", the total is expressed as a "less than" and includes the "less than" concentration within the total.

Polycyclic Aromatic Hydrocarbons GC/MS (SIM)

Customer and Site Details:	RPS Consultants: Awe Burghfield	
Sample Details:	TP8F-002 0.6	Job Number: S08_5458M
LIMS ID Number:	CL0825208	Date Booked in: 27-Aug-08
QC Batch Number:	3127	Date Extracted: 02-Sep-08
Quantitation File:	Initial Calibration	Date Analysed: 08-Sep-08
Directory:	908PAH.MS10\	Matrix: Soil
Dilution:	1.0	Ext Method: Ultrasonic

Accredited?: No

Target Compounds	CAS #	R.T. (min)	Concentration mg/kg	% Fit	Accr. code
Naphthalene	91-20-3	-	< 0.09	-	N
Acenaphthylene	208-96-8	-	< 0.09	-	N
Acenaphthene	83-32-9	-	< 0.09	-	N
Fluorene	86-73-7	-	< 0.09	-	N
Phenanthrene	85-01-8	-	< 0.09	-	N
Anthracene	120-12-7	-	< 0.09	-	N
Fluoranthene	206-44-0	-	< 0.09	-	N
Pyrene	129-00-0	-	< 0.09	-	N
Benzo[a]anthracene	56-55-3	-	< 0.09	-	N
Chrysene	218-01-9	-	< 0.09	-	N
Benzo[b]fluoranthene	205-99-2	-	< 0.09	-	N
Benzo[k]fluoranthene	207-08-9	-	< 0.09	-	N
Benzo[a]pyrene	50-32-8	-	< 0.09	-	N
Indeno[1,2,3-cd]pyrene	193-39-5	12.36	0.20	91	N
Dibenzo[a,h]anthracene	53-70-3	12.41	0.15	M	N
Benzo[g,h,i]perylene	191-24-2	12.62	0.27	94	N
Coronene	191-07-1	14.14	1.24	94	N
Total (USEPA16) PAHs	-	-	< 1.90	-	N

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	105
Acenaphthene-d10	113
Phenanthrene-d10	111
Chrysene-d12	119
Perylene-d12	128

Surrogates	% Rec
Nitrobenzene-d5	N.D
2-Fluorobiphenyl	89
Terphenyl-d14	95

Concentrations are reported on a dry weight basis.

The Total PAH result is the sum of non-rounded individual PAH results and therefore may differ to the sum of the rounded individual PAH results printed above. By convention, where any one or more result is a "less than", the total is expressed as a "less than" and includes the "less than" concentration within the total.

Polycyclic Aromatic Hydrocarbons GC/MS (SIM)

Customer and Site Details:	RPS Consultants: Awe Burghfield	
Sample Details:	TP8F-009 0.85	Job Number: S08_5458M
LIMS ID Number:	CL0825209	Date Booked in: 27-Aug-08
QC Batch Number:	3127	Date Extracted: 02-Sep-08
Quantitation File:	Initial Calibration	Date Analysed: 08-Sep-08
Directory:	908PAH.MS10\	Matrix: Soil
Dilution:	1.0	Ext Method: Ultrasonic

Accredited?: No

Target Compounds	CAS #	R.T. (min)	Concentration mg/kg	% Fit	Accr. code
Naphthalene	91-20-3	-	< 0.10	-	N
Acenaphthylene	208-96-8	-	< 0.10	-	N
Acenaphthene	83-32-9	-	< 0.10	-	N
Fluorene	86-73-7	-	< 0.10	-	N
Phenanthrene	85-01-8	-	< 0.10	-	N
Anthracene	120-12-7	-	< 0.10	-	N
Fluoranthene	206-44-0	6.89	0.21	92	N
Pyrene	129-00-0	7.19	0.19	100	N
Benzo[a]anthracene	56-55-3	9.03	0.14	93	N
Chrysene	218-01-9	9.08	0.15	95	N
Benzo[b]fluoranthene	205-99-2	10.58	0.24	81	N
Benzo[k]fluoranthene	207-08-9	10.60	0.10	76	N
Benzo[a]pyrene	50-32-8	10.98	0.21	97	N
Indeno[1,2,3-cd]pyrene	193-39-5	12.35	0.35	91	N
Dibenzo[a,h]anthracene	53-70-3	12.41	0.17	93	N
Benzo[g,h,i]perylene	191-24-2	12.62	0.37	94	N
Coronene	191-07-1	14.15	1.38	94	N
Total (USEPA16) PAHs	-	-	< 2.78	-	N

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	107
Acenaphthene-d10	112
Phenanthrene-d10	112
Chrysene-d12	122
Perylene-d12	135

Surrogates	% Rec
Nitrobenzene-d5	N.D
2-Fluorobiphenyl	88
Terphenyl-d14	92

Concentrations are reported on a dry weight basis.

The Total PAH result is the sum of non-rounded individual PAH results and therefore may differ to the sum of the rounded individual PAH results printed above. By convention, where any one or more result is a "less than", the total is expressed as a "less than" and includes the "less than" concentration within the total.

Polycyclic Aromatic Hydrocarbons GC/MS (SIM)

Customer and Site Details:	RPS Consultants: Awe Burghfield		
Sample Details:	TP8F-004 0.0-1.0	Job Number:	S08_5458M
LIMS ID Number:	CL0825210	Date Booked in:	27-Aug-08
QC Batch Number:	3127	Date Extracted:	02-Sep-08
Quantitation File:	Initial Calibration	Date Analysed:	08-Sep-08
Directory:	908PAH.MS10\	Matrix:	Soil
Dilution:	1.0	Ext Method:	Ultrasonic

Accredited?: No

Target Compounds	CAS #	R.T. (min)	Concentration mg/kg	% Fit	Accr. code
Naphthalene	91-20-3	-	< 0.12	-	N
Acenaphthylene	208-96-8	-	< 0.12	-	N
Acenaphthene	83-32-9	-	< 0.12	-	N
Fluorene	86-73-7	-	< 0.12	-	N
Phenanthrene	85-01-8	-	< 0.12	-	N
Anthracene	120-12-7	-	< 0.12	-	N
Fluoranthene	206-44-0	-	< 0.12	-	N
Pyrene	129-00-0	-	< 0.12	-	N
Benzo[a]anthracene	56-55-3	-	< 0.12	-	N
Chrysene	218-01-9	-	< 0.12	-	N
Benzo[b]fluoranthene	205-99-2	-	< 0.12	-	N
Benzo[k]fluoranthene	207-08-9	-	< 0.12	-	N
Benzo[a]pyrene	50-32-8	-	< 0.12	-	N
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.12	-	N
Dibenzo[a,h]anthracene	53-70-3	-	< 0.12	-	N
Benzo[g,h,i]perylene	191-24-2	-	< 0.12	-	N
Coronene	191-07-1	-	< 0.12	-	N
Total (USEPA16) PAHs	-	-	< 1.95	-	N

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	112
Acenaphthene-d10	116
Phenanthrene-d10	113
Chrysene-d12	120
Perylene-d12	126

Surrogates	% Rec
Nitrobenzene-d5	N.D
2-Fluorobiphenyl	91
Terphenyl-d14	97

Concentrations are reported on a dry weight basis.

The Total PAH result is the sum of non-rounded individual PAH results and therefore may differ to the sum of the rounded individual PAH results printed above. By convention, where any one or more result is a "less than", the total is expressed as a "less than" and includes the "less than" concentration within the total.

Polycyclic Aromatic Hydrocarbons GC/MS (SIM)

Customer and Site Details:	RPS Consultants: Awe Burghfield	
Sample Details:	TP8F-007 0.0-1.0	Job Number: S08_5458M
LIMS ID Number:	CL0825211	Date Booked in: 27-Aug-08
QC Batch Number:	3127	Date Extracted: 02-Sep-08
Quantitation File:	Initial Calibration	Date Analysed: 08-Sep-08
Directory:	908PAH.MS10\	Matrix: Soil
Dilution:	1.0	Ext Method: Ultrasonic

Accredited?: No

Target Compounds	CAS #	R.T. (min)	Concentration mg/kg	% Fit	Accr. code
Naphthalene	91-20-3	-	< 0.10	-	N
Acenaphthylene	208-96-8	-	< 0.10	-	N
Acenaphthene	83-32-9	-	< 0.10	-	N
Fluorene	86-73-7	-	< 0.10	-	N
Phenanthrene	85-01-8	5.25	0.60	97	N
Anthracene	120-12-7	-	< 0.10	-	N
Fluoranthene	206-44-0	6.89	0.84	95	N
Pyrene	129-00-0	7.19	0.63	95	N
Benzo[a]anthracene	56-55-3	9.03	0.29	92	N
Chrysene	218-01-9	9.08	0.42	96	N
Benzo[b]fluoranthene	205-99-2	10.59	0.37	96	N
Benzo[k]fluoranthene	207-08-9	10.61	0.34	92	N
Benzo[a]pyrene	50-32-8	10.99	0.38	93	N
Indeno[1,2,3-cd]pyrene	193-39-5	12.35	0.27	92	N
Dibenzo[a,h]anthracene	53-70-3	-	< 0.10	-	N
Benzo[g,h,i]perylene	191-24-2	12.62	0.24	93	N
Coronene	191-07-1	14.15	0.10	84	N
Total (USEPA16) PAHs	-	-	< 5.00	-	N

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	102
Acenaphthene-d10	112
Phenanthrene-d10	105
Chrysene-d12	115
Perylene-d12	125

Surrogates	% Rec
Nitrobenzene-d5	N.D
2-Fluorobiphenyl	87
Terphenyl-d14	89

Concentrations are reported on a dry weight basis.

The Total PAH result is the sum of non-rounded individual PAH results and therefore may differ to the sum of the rounded individual PAH results printed above. By convention, where any one or more result is a "less than", the total is expressed as a "less than" and includes the "less than" concentration within the total.

Polycyclic Aromatic Hydrocarbons GC/MS (SIM)

Customer and Site Details:	RPS Consultants: Awe Burghfield	
Sample Details:	TP8F-011 0.0-0.9	Job Number: S08_5458M
LIMS ID Number:	CL0825212	Date Booked in: 27-Aug-08
QC Batch Number:	3127	Date Extracted: 02-Sep-08
Quantitation File:	Initial Calibration	Date Analysed: 08-Sep-08
Directory:	908PAH.MS10\	Matrix: Soil
Dilution:	1.0	Ext Method: Ultrasonic

Accredited?: No

Target Compounds	CAS #	R.T. (min)	Concentration mg/kg	% Fit	Accr. code
Naphthalene	91-20-3	-	< 0.11	-	N
Acenaphthylene	208-96-8	-	< 0.11	-	N
Acenaphthene	83-32-9	-	< 0.11	-	N
Fluorene	86-73-7	-	< 0.11	-	N
Phenanthrene	85-01-8	-	< 0.11	-	N
Anthracene	120-12-7	-	< 0.11	-	N
Fluoranthene	206-44-0	-	< 0.11	-	N
Pyrene	129-00-0	-	< 0.11	-	N
Benzo[a]anthracene	56-55-3	-	< 0.11	-	N
Chrysene	218-01-9	-	< 0.11	-	N
Benzo[b]fluoranthene	205-99-2	-	< 0.11	-	N
Benzo[k]fluoranthene	207-08-9	-	< 0.11	-	N
Benzo[a]pyrene	50-32-8	-	< 0.11	-	N
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.11	-	N
Dibenzo[a,h]anthracene	53-70-3	-	< 0.11	-	N
Benzo[g,h,i]perylene	191-24-2	-	< 0.11	-	N
Coronene	191-07-1	-	< 0.11	-	N
Total (USEPA16) PAHs	-	-	< 1.68	-	N

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	102
Acenaphthene-d10	112
Phenanthrene-d10	109
Chrysene-d12	118
Perylene-d12	130

Surrogates	% Rec
Nitrobenzene-d5	N.D
2-Fluorobiphenyl	88
Terphenyl-d14	92

Concentrations are reported on a dry weight basis.

The Total PAH result is the sum of non-rounded individual PAH results and therefore may differ to the sum of the rounded individual PAH results printed above. By convention, where any one or more result is a "less than", the total is expressed as a "less than" and includes the "less than" concentration within the total.

Polycyclic Aromatic Hydrocarbons GC/MS (SIM)

Customer and Site Details: RPS Consultants: Awe Burghfield
Sample Details: TP8F-012 0.0-0.7 **Job Number:** S08_5458M
LIMS ID Number: CL0825213 **Date Booked in:** 27-Aug-08
QC Batch Number: 3127 **Date Extracted:** 02-Sep-08
Quantitation File: Initial Calibration **Date Analysed:** 08-Sep-08
Directory: 908PAH.MS10\ **Matrix:** Soil
Dilution: 1.0 **Ext Method:** Ultrasonic

Accredited?: No

Target Compounds	CAS #	R.T. (min)	Concentration mg/kg	% Fit	Accr. code
Naphthalene	91-20-3	-	< 0.12	-	N
Acenaphthylene	208-96-8	-	< 0.12	-	N
Acenaphthene	83-32-9	-	< 0.12	-	N
Fluorene	86-73-7	-	< 0.12	-	N
Phenanthrene	85-01-8	5.25	0.56	96	N
Anthracene	120-12-7	-	< 0.12	-	N
Fluoranthene	206-44-0	6.89	1.21	94	N
Pyrene	129-00-0	7.19	0.89	98	N
Benzo[a]anthracene	56-55-3	9.03	0.30	91	N
Chrysene	218-01-9	9.08	0.57	97	N
Benzo[b]fluoranthene	205-99-2	10.58	0.50	89	N
Benzo[k]fluoranthene	207-08-9	10.60	0.43	84	N
Benzo[a]pyrene	50-32-8	10.98	0.45	97	N
Indeno[1,2,3-cd]pyrene	193-39-5	12.36	0.39	100	N
Dibenzo[a,h]anthracene	53-70-3	-	< 0.12	-	N
Benzo[g,h,i]perylene	191-24-2	12.62	0.34	92	N
Coronene	191-07-1	14.14	0.23	97	N
Total (USEPA16) PAHs	-	-	< 6.40	-	N

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	107
Acenaphthene-d10	114
Phenanthrene-d10	114
Chrysene-d12	125
Perylene-d12	136

Surrogates	% Rec
Nitrobenzene-d5	N.D
2-Fluorobiphenyl	88
Terphenyl-d14	92

Concentrations are reported on a dry weight basis.

The Total PAH result is the sum of non-rounded individual PAH results and therefore may differ to the sum of the rounded individual PAH results printed above. By convention, where any one or more result is a "less than", the total is expressed as a "less than" and includes the "less than" concentration within the total.

Polycyclic Aromatic Hydrocarbons GC/MS (SIM)

Customer and Site Details:	RPS Consultants: Awe Burghfield		
Sample Details:	TP8F-012 1.2	Job Number:	S08_5458M
LIMS ID Number:	CL0825214	Date Booked in:	27-Aug-08
QC Batch Number:	3127	Date Extracted:	02-Sep-08
Quantitation File:	Initial Calibration	Date Analysed:	08-Sep-08
Directory:	908PAH.MS10\	Matrix:	Soil
Dilution:	1.0	Ext Method:	Ultrasonic

Accredited?: No

Target Compounds	CAS #	R.T. (min)	Concentration mg/kg	% Fit	Accr. code
Naphthalene	91-20-3	-	< 0.10	-	N
Acenaphthylene	208-96-8	-	< 0.10	-	N
Acenaphthene	83-32-9	-	< 0.10	-	N
Fluorene	86-73-7	-	< 0.10	-	N
Phenanthrene	85-01-8	-	< 0.10	-	N
Anthracene	120-12-7	-	< 0.10	-	N
Fluoranthene	206-44-0	-	< 0.10	-	N
Pyrene	129-00-0	-	< 0.10	-	N
Benzo[a]anthracene	56-55-3	-	< 0.10	-	N
Chrysene	218-01-9	-	< 0.10	-	N
Benzo[b]fluoranthene	205-99-2	-	< 0.10	-	N
Benzo[k]fluoranthene	207-08-9	-	< 0.10	-	N
Benzo[a]pyrene	50-32-8	-	< 0.10	-	N
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.10	-	N
Dibenzo[a,h]anthracene	53-70-3	-	< 0.10	-	N
Benzo[g,h,i]perylene	191-24-2	-	< 0.10	-	N
Coronene	191-07-1	-	< 0.10	-	N
Total (USEPA16) PAHs	-	-	< 1.66	-	N

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	111
Acenaphthene-d10	118
Phenanthrene-d10	110
Chrysene-d12	115
Perylene-d12	128

Surrogates	% Rec
Nitrobenzene-d5	N.D
2-Fluorobiphenyl	89
Terphenyl-d14	94

Concentrations are reported on a dry weight basis.

The Total PAH result is the sum of non-rounded individual PAH results and therefore may differ to the sum of the rounded individual PAH results printed above. By convention, where any one or more result is a "less than", the total is expressed as a "less than" and includes the "less than" concentration within the total.

Polycyclic Aromatic Hydrocarbons GC/MS (SIM)

Customer and Site Details:	RPS Consultants: Awe Burghfield		
Sample Details:	TP8S-004 0.9	Job Number:	S08_5458M
LIMS ID Number:	CL0825215	Date Booked in:	27-Aug-08
QC Batch Number:	3127	Date Extracted:	02-Sep-08
Quantitation File:	Initial Calibration	Date Analysed:	08-Sep-08
Directory:	908PAH.MS10\	Matrix:	Soil
Dilution:	1.0	Ext Method:	Ultrasonic

Accredited?: No

Target Compounds	CAS #	R.T. (min)	Concentration mg/kg	% Fit	Accr. code
Naphthalene	91-20-3	-	< 0.10	-	N
Acenaphthylene	208-96-8	-	< 0.10	-	N
Acenaphthene	83-32-9	-	< 0.10	-	N
Fluorene	86-73-7	-	< 0.10	-	N
Phenanthrene	85-01-8	-	< 0.10	-	N
Anthracene	120-12-7	-	< 0.10	-	N
Fluoranthene	206-44-0	-	< 0.10	-	N
Pyrene	129-00-0	-	< 0.10	-	N
Benzo[a]anthracene	56-55-3	-	< 0.10	-	N
Chrysene	218-01-9	-	< 0.10	-	N
Benzo[b]fluoranthene	205-99-2	-	< 0.10	-	N
Benzo[k]fluoranthene	207-08-9	-	< 0.10	-	N
Benzo[a]pyrene	50-32-8	-	< 0.10	-	N
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.10	-	N
Dibenzo[a,h]anthracene	53-70-3	-	< 0.10	-	N
Benzo[g,h,i]perylene	191-24-2	-	< 0.10	-	N
Coronene	191-07-1	-	< 0.10	-	N
Total (USEPA16) PAHs	-	-	< 1.65	-	N

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	101
Acenaphthene-d10	110
Phenanthrene-d10	104
Chrysene-d12	111
Perylene-d12	118

Surrogates	% Rec
Nitrobenzene-d5	N.D
2-Fluorobiphenyl	89
Terphenyl-d14	93

Concentrations are reported on a dry weight basis.

The Total PAH result is the sum of non-rounded individual PAH results and therefore may differ to the sum of the rounded individual PAH results printed above. By convention, where any one or more result is a "less than", the total is expressed as a "less than" and includes the "less than" concentration within the total.

Polycyclic Aromatic Hydrocarbons GC/MS (SIM)

Customer and Site Details:	RPS Consultants: Awe Burghfield		
Sample Details:	TP8F-014 0.85	Job Number:	S08_5458M
LIMS ID Number:	CL0825216	Date Booked in:	27-Aug-08
QC Batch Number:	3127	Date Extracted:	02-Sep-08
Quantitation File:	Initial Calibration	Date Analysed:	08-Sep-08
Directory:	908PAH.MS10\	Matrix:	Soil
Dilution:	1.0	Ext Method:	Ultrasonic

Accredited?: No

Target Compounds	CAS #	R.T. (min)	Concentration mg/kg	% Fit	Accr. code
Naphthalene	91-20-3	-	< 0.10	-	N
Acenaphthylene	208-96-8	-	< 0.10	-	N
Acenaphthene	83-32-9	-	< 0.10	-	N
Fluorene	86-73-7	-	< 0.10	-	N
Phenanthrene	85-01-8	-	< 0.10	-	N
Anthracene	120-12-7	-	< 0.10	-	N
Fluoranthene	206-44-0	-	< 0.10	-	N
Pyrene	129-00-0	-	< 0.10	-	N
Benzo[a]anthracene	56-55-3	-	< 0.10	-	N
Chrysene	218-01-9	-	< 0.10	-	N
Benzo[b]fluoranthene	205-99-2	-	< 0.10	-	N
Benzo[k]fluoranthene	207-08-9	-	< 0.10	-	N
Benzo[a]pyrene	50-32-8	-	< 0.10	-	N
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.10	-	N
Dibenzo[a,h]anthracene	53-70-3	-	< 0.10	-	N
Benzo[g,h,i]perylene	191-24-2	-	< 0.10	-	N
Coronene	191-07-1	-	< 0.10	-	N
Total (USEPA16) PAHs	-	-	< 1.62	-	N

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	97
Acenaphthene-d10	104
Phenanthrene-d10	97
Chrysene-d12	101
Perylene-d12	113

Surrogates	% Rec
Nitrobenzene-d5	N.D
2-Fluorobiphenyl	90
Terphenyl-d14	97

Concentrations are reported on a dry weight basis.

The Total PAH result is the sum of non-rounded individual PAH results and therefore may differ to the sum of the rounded individual PAH results printed above. By convention, where any one or more result is a "less than", the total is expressed as a "less than" and includes the "less than" concentration within the total.

Polychlorinated Biphenyls (congeners)

Customer and Site Details: RPS Consultants: Awe Burghfield
Job Number: S08_5458M
QC Batch Number: 083107
Directory: 0902PCB.GC11
Method: Ultrasonic
Accreditation code: N

Matrix: SOIL
Date Booked in: 27-Aug-08
Date Extracted: 02-Sep-08
Date Analysed: 03-Sep-08

Sample ID	Customer ID	Concentration, (µg/kg)						
		PCB28	PCB52	PCB101	PCB118	PCB153	PCB138	PCB180
* CL0825213	TP8F-012 0.0-0.7	<6.5	<6.5	<6.5	<6.5	<6.5	<6.5	<6.5
* CL0825214	TP8F-012 1.2	<5.2	<5.2	<5.2	<5.2	<5.2	<5.2	<5.2

Semi-Volatile Organic Compounds

Accredited?: No

Customer and Site Details:

RPS Consultants: Awe Burghfield

Sample Details:

TP8F-009 0.85

LIMS ID Number:

CL0825209

Job Number:

S08_5458M

Date Booked in:

27-Aug-08

Date Extracted:

03-Sep-08

Date Analysed:

07-Sep-08

Matrix:

Soil

Ext Method:

Ultrasonic

Operator:

AB/SO

Directory/Quant File:

905SVOC_MS9\ 0905CCC5.D

QC Batch Number:

3137

Multiplier:

0.2

Dilution Factor:

1

GPC (Y/N)

N

Target Compounds	CAS #	R.T. (min)	Concentration mg/kg	% Fit	Accr. code
Phenol	108-95-2	-	< 3.0	-	N
bis(2-Chloroethyl)ether	111-44-4	-	< 0.6	-	N
2-Chlorophenol	95-57-8	-	< 3.0	-	N
1,3-Dichlorobenzene	541-73-1	-	< 0.6	-	N
1,4-Dichlorobenzene	106-46-7	-	< 0.6	-	N
Benzyl alcohol	100-51-6	-	< 0.6	-	N
1,2-Dichlorobenzene	95-50-1	-	< 0.6	-	N
2-Methylphenol	95-48-7	-	< 0.6	-	N
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.6	-	N
Hexachloroethane	67-72-1	-	< 0.6	-	N
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.6	-	N
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 3.0	-	N
Nitrobenzene	98-95-3	-	< 0.6	-	N
Isophorone	78-59-1	-	< 0.6	-	N
2-Nitrophenol	88-75-5	-	< 3.0	-	N
2,4-Dimethylphenol	105-67-9	-	< 3.0	-	N
Benzoic Acid	65-85-0 *	-	< 13.0	-	N
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.6	-	N
2,4-Dichlorophenol	120-83-2	-	< 3.0	-	N
1,2,4-Trichlorobenzene	120-82-1	-	< 0.6	-	N
Naphthalene	91-20-3	-	< 0.3	-	N
4-Chlorophenol	106-48-9	-	< 3.0	-	N
4-Chloroaniline	106-47-8 *	-	< 0.6	-	N
Hexachlorobutadiene	87-68-3	-	< 0.6	-	N
4-Chloro-3-methylphenol	59-50-7	-	< 0.6	-	N
2-Methylnaphthalene	91-57-6	-	< 0.3	-	N
1-Methylnaphthalene	90-12-0	-	< 0.3	-	N
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.6	-	N
2,4,6-Trichlorophenol	88-06-2	-	< 3.0	-	N
2,4,5-Trichlorophenol	95-95-4	-	< 3.0	-	N
2-Chloronaphthalene	91-58-7	-	< 0.3	-	N
Biphenyl	92-52-4	-	< 0.3	-	N
Diphenyl ether	101-84-8	-	< 0.3	-	N
2-Nitroaniline	88-74-4	-	< 0.6	-	N
Acenaphthylene	208-96-8	-	< 0.3	-	N
Dimethylphthalate	131-11-3	-	< 0.6	-	N
2,6-Dinitrotoluene	606-20-2	-	< 0.6	-	N
Acenaphthene	83-32-9	-	< 0.3	-	N
3-Nitroaniline	99-09-2	-	< 0.6	-	N

Target Compounds	CAS #	R.T.	Concentration mg/kg	% Fit	Accr. code
2,4-Dinitrophenol	51-28-5 *	-	< 1.0	-	N
Dibenzofuran	132-64-9	-	< 0.6	-	N
4-Nitrophenol	100-02-7	-	< 6.0	-	N
2,4-Dinitrotoluene	121-14-2	-	< 0.6	-	N
Fluorene	86-73-7	-	< 0.3	-	N
Diethylphthalate	84-66-2	-	< 0.6	-	N
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.6	-	N
4,6-Dinitro-2-methylphenol	534-52-1	-	< 6.0	-	N
4-Nitroaniline	100-01-6	-	< 0.6	-	N
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.6	-	N
4-Bromophenyl-phenylether	101-55-3	-	< 0.6	-	N
Hexachlorobenzene	118-74-1	-	< 0.6	-	N
Pentachlorophenol	87-86-5	-	< 6.0	-	N
Phenanthrene	85-01-8	-	< 0.3	-	N
Anthracene	120-12-7	-	< 0.3	-	N
Di-n-butylphthalate	84-74-2	-	< 0.6	-	N
Fluoranthene	206-44-0	-	< 0.3	-	N
Pyrene	129-00-0	-	< 0.3	-	N
Butylbenzylphthalate	85-68-7	-	< 0.6	-	N
Benzo[a]anthracene	56-55-3	-	< 0.3	-	N
Chrysene	218-01-9	-	< 0.3	-	N
3,3'-Dichlorobenzidine	91-94-1	-	< 3.0	-	N
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.6	-	N
Di-n-octylphthalate	117-84-0	-	< 0.3	-	N
Benzo[b]fluoranthene	205-99-2	-	< 0.3	-	N
Benzo[k]fluoranthene	207-08-9	-	< 0.3	-	N
Benzo[a]pyrene	50-32-8	-	< 0.3	-	N
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.3	-	N
Dibenzo[a,h]anthracene	53-70-3	-	< 0.3	-	N
Benzo[g,h,i]perylene	191-24-2	-	< 0.3	-	N

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	111
Naphthalene-d8	112
Acenaphthene-d10	105
Phenanthrene-d10	113
Chrysene-d12	117
Perylene-d12	127

Surrogates	% Rec
2-Fluorophenol	N.D
Phenol-d5	75
Nitrobenzene-d5	N.D
2-Fluorobiphenyl	73
2,4,6-Tribromophenol	65
Terphenyl-d14	76

This analysis was conducted on an 'As Received' basis.

Concentrations are reported on a dry weight basis.

Semi-Volatile Organic Compounds

Accredited?: No

Customer and Site Details:

RPS Consultants: Awe Burghfield

Sample Details:

TP8F-012 0.0-0.7

LIMS ID Number:

CL0825213

Job Number:

S08_5458M

Date Booked in:

27-Aug-08

Date Extracted:

03-Sep-08

Date Analysed:

07-Sep-08

Matrix:

Soil

Ext Method:

Ultrasonic

Operator:

AB/SO

Directory/Quant File:

905SVOC_MS9\ 0905CCC5.D

QC Batch Number:

3137

Multiplier:

0.2

Dilution Factor:

1

GPC (Y/N)

N

Target Compounds	CAS #	R.T. (min)	Concentration mg/kg	% Fit	Accr. code
Phenol	108-95-2	-	< 3.0	-	N
bis(2-Chloroethyl)ether	111-44-4	-	< 0.8	-	N
2-Chlorophenol	95-57-8	-	< 3.0	-	N
1,3-Dichlorobenzene	541-73-1	-	< 0.8	-	N
1,4-Dichlorobenzene	106-46-7	-	< 0.8	-	N
Benzyl alcohol	100-51-6	-	< 0.8	-	N
1,2-Dichlorobenzene	95-50-1	-	< 0.8	-	N
2-Methylphenol	95-48-7	-	< 0.8	-	N
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.8	-	N
Hexachloroethane	67-72-1	-	< 0.8	-	N
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.8	-	N
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 3.0	-	N
Nitrobenzene	98-95-3	-	< 0.8	-	N
Isophorone	78-59-1	-	< 0.8	-	N
2-Nitrophenol	88-75-5	-	< 3.0	-	N
2,4-Dimethylphenol	105-67-9	-	< 3.0	-	N
Benzoic Acid	65-85-0 *	-	< 16.0	-	N
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.8	-	N
2,4-Dichlorophenol	120-83-2	-	< 3.0	-	N
1,2,4-Trichlorobenzene	120-82-1	-	< 0.8	-	N
Naphthalene	91-20-3	-	< 0.3	-	N
4-Chlorophenol	106-48-9	-	< 3.0	-	N
4-Chloroaniline	106-47-8 *	-	< 0.8	-	N
Hexachlorobutadiene	87-68-3	-	< 0.8	-	N
4-Chloro-3-methylphenol	59-50-7	-	< 0.8	-	N
2-Methylnaphthalene	91-57-6	-	< 0.3	-	N
1-Methylnaphthalene	90-12-0	-	< 0.3	-	N
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.8	-	N
2,4,6-Trichlorophenol	88-06-2	-	< 3.0	-	N
2,4,5-Trichlorophenol	95-95-4	-	< 3.0	-	N
2-Chloronaphthalene	91-58-7	-	< 0.3	-	N
Biphenyl	92-52-4	-	< 0.3	-	N
Diphenyl ether	101-84-8	-	< 0.3	-	N
2-Nitroaniline	88-74-4	-	< 0.8	-	N
Acenaphthylene	208-96-8	-	< 0.3	-	N
Dimethylphthalate	131-11-3	-	< 0.8	-	N
2,6-Dinitrotoluene	606-20-2	-	< 0.8	-	N
Acenaphthene	83-32-9	-	< 0.3	-	N
3-Nitroaniline	99-09-2	-	< 0.8	-	N

Target Compounds	CAS #	R.T.	Concentration mg/kg	% Fit	Accr. code
2,4-Dinitrophenol	51-28-5 *	-	< 2.0	-	N
Dibenzofuran	132-64-9	-	< 0.8	-	N
4-Nitrophenol	100-02-7	-	< 8.0	-	N
2,4-Dinitrotoluene	121-14-2	-	< 0.8	-	N
Fluorene	86-73-7	-	< 0.3	-	N
Diethylphthalate	84-66-2	-	< 0.8	-	N
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.8	-	N
4,6-Dinitro-2-methylphenol	534-52-1	-	< 8.0	-	N
4-Nitroaniline	100-01-6	-	< 0.8	-	N
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.8	-	N
4-Bromophenyl-phenylether	101-55-3	-	< 0.8	-	N
Hexachlorobenzene	118-74-1	-	< 0.8	-	N
Pentachlorophenol	87-86-5	-	< 8.0	-	N
Phenanthrene	85-01-8	9.28	1.2	98	N
Anthracene	120-12-7	-	< 0.3	-	N
Di-n-butylphthalate	84-74-2	-	< 0.8	-	N
Fluoranthene	206-44-0	11.01	2.0	87	N
Pyrene	129-00-0	11.31	2.0	92	N
Butylbenzylphthalate	85-68-7	-	< 0.8	-	N
Benzo[a]anthracene	56-55-3	13.19	0.5	89	N
Chrysene	218-01-9	13.25	0.6	95	N
3,3'-Dichlorobenzidine	91-94-1	-	< 3.0	-	N
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.8	-	N
Di-n-octylphthalate	117-84-0	-	< 0.3	-	N
Benzo[b]fluoranthene	205-99-2	14.79	0.8	95	N
Benzo[k]fluoranthene	207-08-9	-	< 0.3	-	N
Benzo[a]pyrene	50-32-8	15.22	0.6	90	N
Indeno[1,2,3-cd]pyrene	193-39-5	16.64	0.3	95	N
Dibenzo[a,h]anthracene	53-70-3	-	< 0.3	-	N
Benzo[g,h,i]perylene	191-24-2	16.91	0.3	97	N

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	108
Naphthalene-d8	114
Acenaphthene-d10	108
Phenanthrene-d10	114
Chrysene-d12	110
Perylene-d12	102

Surrogates	% Rec
2-Fluorophenol	N.D
Phenol-d5	76
Nitrobenzene-d5	N.D
2-Fluorobiphenyl	72
2,4,6-Tribromophenol	79
Terphenyl-d14	70

This analysis was conducted on an 'As Received' basis.

Concentrations are reported on a dry weight basis.

Semi-Volatile Organic Compounds

Accredited?: No

Customer and Site Details:

RPS Consultants: Awe Burghfield

Sample Details:

TP8F-012 1.2

LIMS ID Number:

CL0825214

Job Number:

S08_5458M

Date Booked in:

27-Aug-08

Date Extracted:

03-Sep-08

Date Analysed:

07-Sep-08

Matrix:

Soil

Ext Method:

Ultrasonic

Operator:

AB/SO

Directory/Quant File:

905SVOC_MS9\ 0905CCC5.D

QC Batch Number:

3137

Multiplier:

0.2

Dilution Factor:

1

GPC (Y/N)

N

Target Compounds	CAS #	R.T. (min)	Concentration mg/kg	% Fit	Accr. code
Phenol	108-95-2	-	< 3.0	-	N
bis(2-Chloroethyl)ether	111-44-4	-	< 0.7	-	N
2-Chlorophenol	95-57-8	-	< 3.0	-	N
1,3-Dichlorobenzene	541-73-1	-	< 0.7	-	N
1,4-Dichlorobenzene	106-46-7	-	< 0.7	-	N
Benzyl alcohol	100-51-6	-	< 0.7	-	N
1,2-Dichlorobenzene	95-50-1	-	< 0.7	-	N
2-Methylphenol	95-48-7	-	< 0.7	-	N
bis(2-Chloroisopropyl)ether	108-60-1	-	< 0.7	-	N
Hexachloroethane	67-72-1	-	< 0.7	-	N
N-Nitroso-di-n-propylamine	621-64-7	-	< 0.7	-	N
3- & 4-Methylphenol	108-39-4/106-44-5	-	< 3.0	-	N
Nitrobenzene	98-95-3	-	< 0.7	-	N
Isophorone	78-59-1	-	< 0.7	-	N
2-Nitrophenol	88-75-5	-	< 3.0	-	N
2,4-Dimethylphenol	105-67-9	-	< 3.0	-	N
Benzoic Acid	65-85-0 *	-	< 13.0	-	N
bis(2-Chloroethoxy)methane	111-91-1	-	< 0.7	-	N
2,4-Dichlorophenol	120-83-2	-	< 3.0	-	N
1,2,4-Trichlorobenzene	120-82-1	-	< 0.7	-	N
Naphthalene	91-20-3	-	< 0.3	-	N
4-Chlorophenol	106-48-9	-	< 3.0	-	N
4-Chloroaniline	106-47-8 *	-	< 0.7	-	N
Hexachlorobutadiene	87-68-3	-	< 0.7	-	N
4-Chloro-3-methylphenol	59-50-7	-	< 0.7	-	N
2-Methylnaphthalene	91-57-6	-	< 0.3	-	N
1-Methylnaphthalene	90-12-0	-	< 0.3	-	N
Hexachlorocyclopentadiene	77-47-4 *	-	< 0.7	-	N
2,4,6-Trichlorophenol	88-06-2	-	< 3.0	-	N
2,4,5-Trichlorophenol	95-95-4	-	< 3.0	-	N
2-Chloronaphthalene	91-58-7	-	< 0.3	-	N
Biphenyl	92-52-4	-	< 0.3	-	N
Diphenyl ether	101-84-8	-	< 0.3	-	N
2-Nitroaniline	88-74-4	-	< 0.7	-	N
Acenaphthylene	208-96-8	-	< 0.3	-	N
Dimethylphthalate	131-11-3	-	< 0.7	-	N
2,6-Dinitrotoluene	606-20-2	-	< 0.7	-	N
Acenaphthene	83-32-9	-	< 0.3	-	N
3-Nitroaniline	99-09-2	-	< 0.7	-	N

Target Compounds	CAS #	R.T.	Concentration mg/kg	% Fit	Accr. code
2,4-Dinitrophenol	51-28-5 *	-	< 1.0	-	N
Dibenzofuran	132-64-9	-	< 0.7	-	N
4-Nitrophenol	100-02-7	-	< 7.0	-	N
2,4-Dinitrotoluene	121-14-2	-	< 0.7	-	N
Fluorene	86-73-7	-	< 0.3	-	N
Diethylphthalate	84-66-2	-	< 0.7	-	N
4-Chlorophenyl-phenylether	7005-72-3	-	< 0.7	-	N
4,6-Dinitro-2-methylphenol	534-52-1	-	< 7.0	-	N
4-Nitroaniline	100-01-6	-	< 0.7	-	N
N-Nitrosodiphenylamine	86-30-6 *	-	< 0.7	-	N
4-Bromophenyl-phenylether	101-55-3	-	< 0.7	-	N
Hexachlorobenzene	118-74-1	-	< 0.7	-	N
Pentachlorophenol	87-86-5	-	< 7.0	-	N
Phenanthrene	85-01-8	-	< 0.3	-	N
Anthracene	120-12-7	-	< 0.3	-	N
Di-n-butylphthalate	84-74-2	-	< 0.7	-	N
Fluoranthene	206-44-0	-	< 0.3	-	N
Pyrene	129-00-0	-	< 0.3	-	N
Butylbenzylphthalate	85-68-7	-	< 0.7	-	N
Benzo[a]anthracene	56-55-3	-	< 0.3	-	N
Chrysene	218-01-9	-	< 0.3	-	N
3,3'-Dichlorobenzidine	91-94-1	-	< 3.0	-	N
bis(2-Ethylhexyl)phthalate	117-81-7	-	< 0.7	-	N
Di-n-octylphthalate	117-84-0	-	< 0.3	-	N
Benzo[b]fluoranthene	205-99-2	-	< 0.3	-	N
Benzo[k]fluoranthene	207-08-9	-	< 0.3	-	N
Benzo[a]pyrene	50-32-8	-	< 0.3	-	N
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.3	-	N
Dibenzo[a,h]anthracene	53-70-3	-	< 0.3	-	N
Benzo[g,h,i]perylene	191-24-2	-	< 0.3	-	N

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	97
Naphthalene-d8	106
Acenaphthene-d10	103
Phenanthrene-d10	106
Chrysene-d12	105
Perylene-d12	106

Surrogates	% Rec
2-Fluorophenol	N.D
Phenol-d5	85
Nitrobenzene-d5	N.D
2-Fluorobiphenyl	78
2,4,6-Tribromophenol	69
Terphenyl-d14	87

This analysis was conducted on an 'As Received' basis.

Concentrations are reported on a dry weight basis.

ALIPHATIC / AROMATIC FRACTION BY GC/FID

Customer and Site Details: RPS Consultants : Awe Burghfield
Job Number: S08_5458
QC Batch Number: 83127
Directory: D:\TES\DATA\Y2008\0904TPH_GC7\096B5301.D
Method: Ultra Sonic

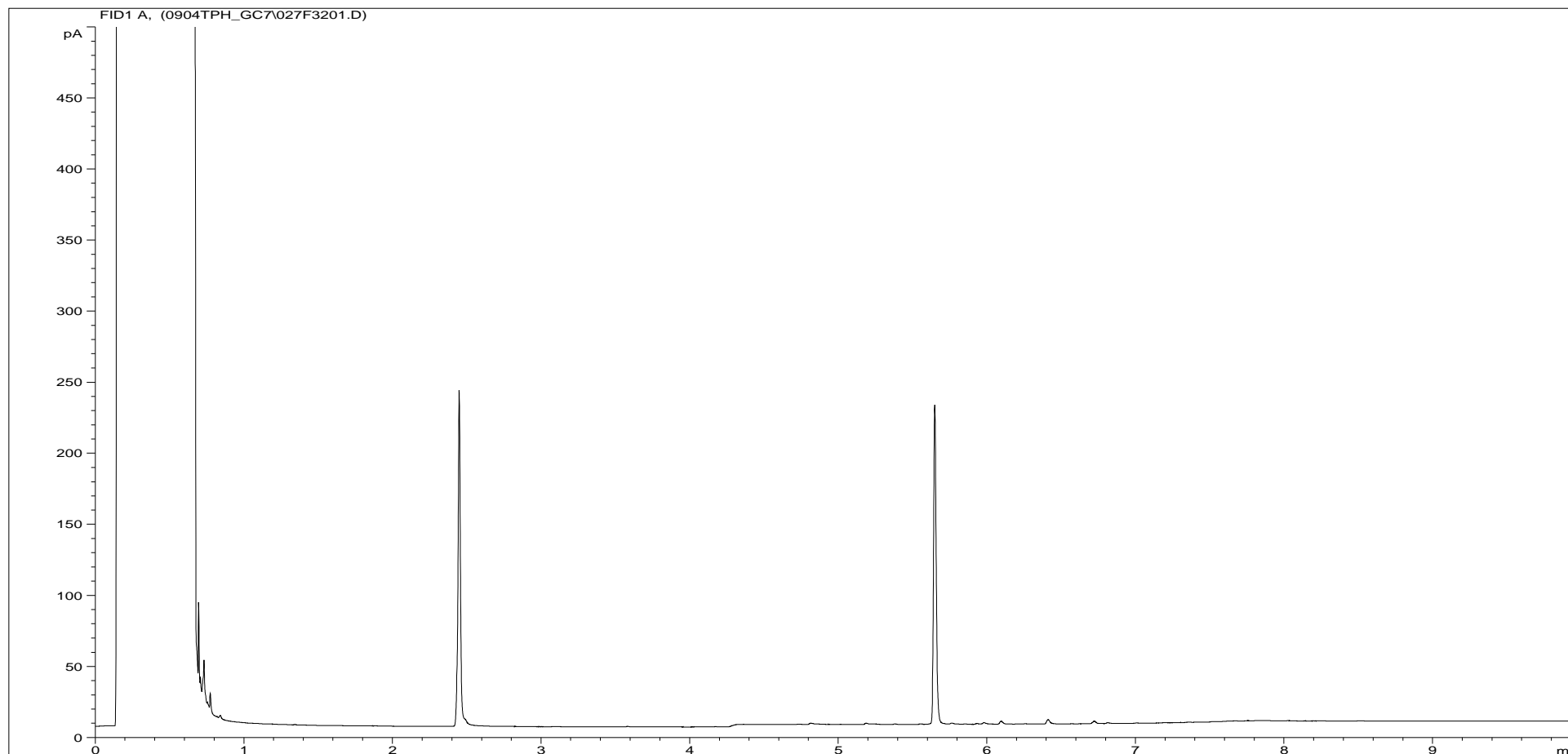
Separation: Silica gel
Eluents: Hexane, DCM

Matrix: Soil
Date Booked in: 27-Aug-08
Date Extracted: 02-Sep-08
Date Analysed: 05-Sep-08

Concentration, (mg/kg) - as dry weight.

This sample data is not accredited.												
		>C8 - C10		>C10 - C12		>C12 - C16		>C16 - C21		>C21 - C35		
Sample ID	Client ID	Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics	
*	CL0825197	TP8F-007 0.0-0.6	<5	<5	<5	<5	<5	7.52	<5	<5	<11.70	<11.70
*	CL0825198	TP8F-016 0.2-0.4	<5	<5	<5	<5	<5	7.5	<5	<5	<11.06	<11.06
*	CL0825199	TP8F-005 0.1-0.3	<5	<5	<5	<5	<5	<5	<5	<5	<11.35	14.9
*	CL0825200	TP8F-006 0.1-0.3	<5	<5	<5	<5	<5	7.61	<5	<5	<11.38	<11.38
*	CL0825201	TP8F-010 0.0-0.8	<5	<5	<5	<5	<5	6.53	<5	<5	<11.02	<11.02
*	CL0825202	BH8F-002 0.6	<5	<5	<5	<5	<5	<5	<5	<5	<10.92	<10.92
*	CL0825203	BH8F-003 0.5-0.8	<5	<5	<5	<5	<5	4.95	<5	<5	<10.79	<10.79
*	CL0825204	TP8F-013 0.5-1.0	<5	<5	<5	<5	<5	<5	<5	<5	<10.80	<10.80
*	CL0825205	TP8F-001 0.75	<5	<5	<5	<5	<5	<5	<5	<5	<11.30	<11.30
*	CL0825206	TP8F-003 0.6	<5	<5	<5	<5	<5	<5	<5	<5	<10.38	<10.38
*	CL0825207	TP8F-008 1.1	<5	<5	<5	<5	<5	5.63	<5	<5	<10.53	<10.53
*	CL0825208	TP8F-002 0.6	<5	<5	<5	<5	<5	<5	<5	<5	<10.34	<10.34
*	CL0825209	TP8F-009 0.85	<5	<5	<5	<5	<5	<5	<5	<5	<11.29	<11.29
*	CL0825210	TP8F-004 0.0-1.0	<6	<6	<6	<6	<6	<6	<6	<6	<13.37	<13.37
*	CL0825211	TP8F-007 0.0-1.0	<5	<5	<5	<5	<5	<5	<5	<5	<11.47	12.6
*	CL0825212	TP8F-011 0.0-0.9	<5	<5	<5	<5	<5	5.71	<5	<5	<11.53	<11.53
*	CL0825213	TP8F-012 0.0-0.7	<6	<6	<6	<6	<6	6.74	<6	9.81	14.4	58.1
*	CL0825214	TP8F-012 1.2	<5	<5	<5	<5	<5	<5	<5	<5	<11.39	<11.39
*	CL0825215	TP8S-004 0.9	<5	<5	<5	<5	<5	5.89	<5	<5	<11.29	16.4
*	CL0825216	TP8F-014 0.85	<5	<5	<5	<5	<5	<5	<5	<5	<11.12	<11.12

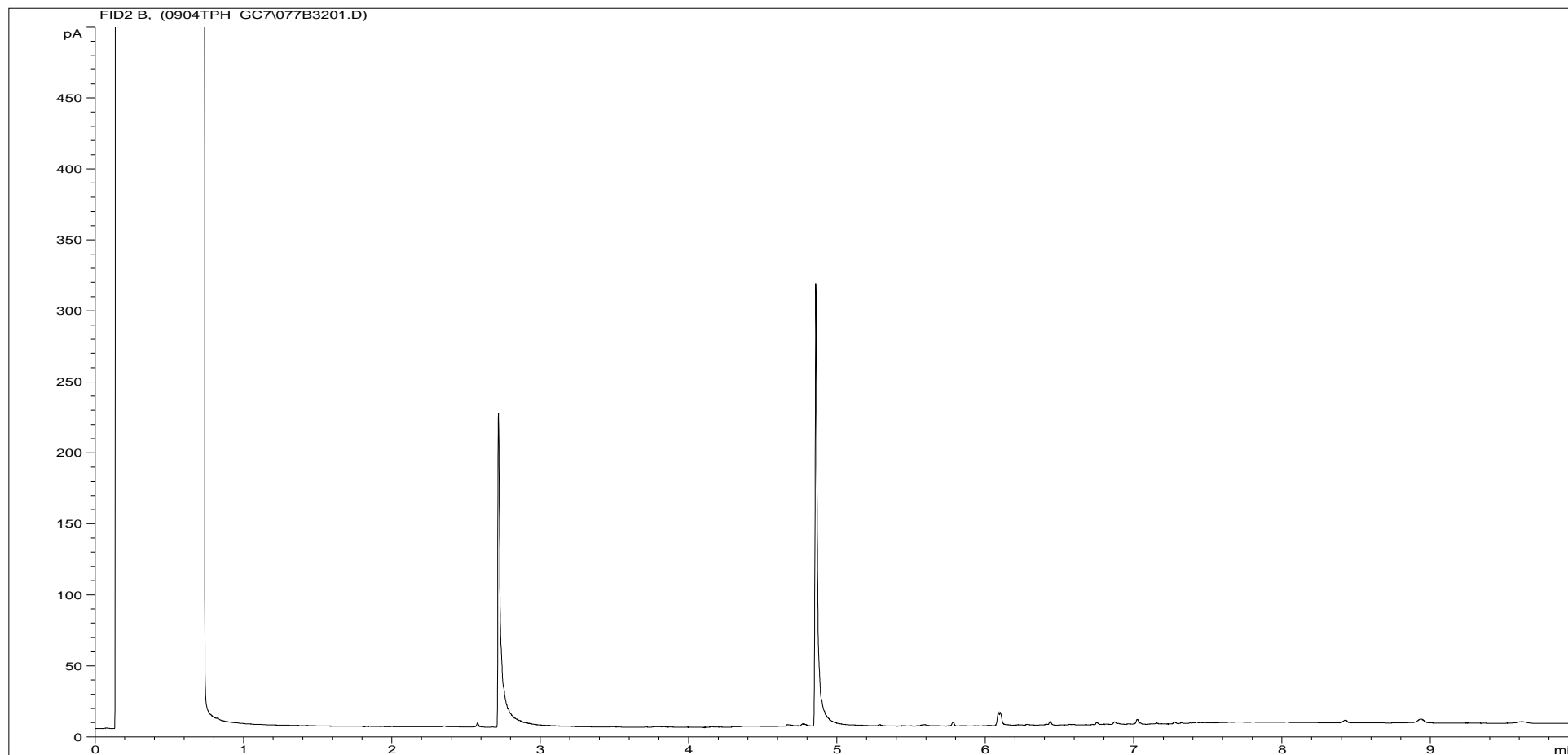
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



Sample ID:	CL0825197ALI	Job Number:	S08_5458M
Multiplier:	15.2	Client:	RPS Consultants
Dilution:	1	Site:	Awe Burghfield
Acquisition Method:	5UL_RUNFNORACE.M	Client Sample Ref:	TP8F-007 0.0-0.6
Acquisition Date/Time:	05-Sep-08		
Datafile:	D:\TES\DATA\Y2008\0904TPH_GC7\027F3201.D		

Where individual results are flagged see report notes for for status.

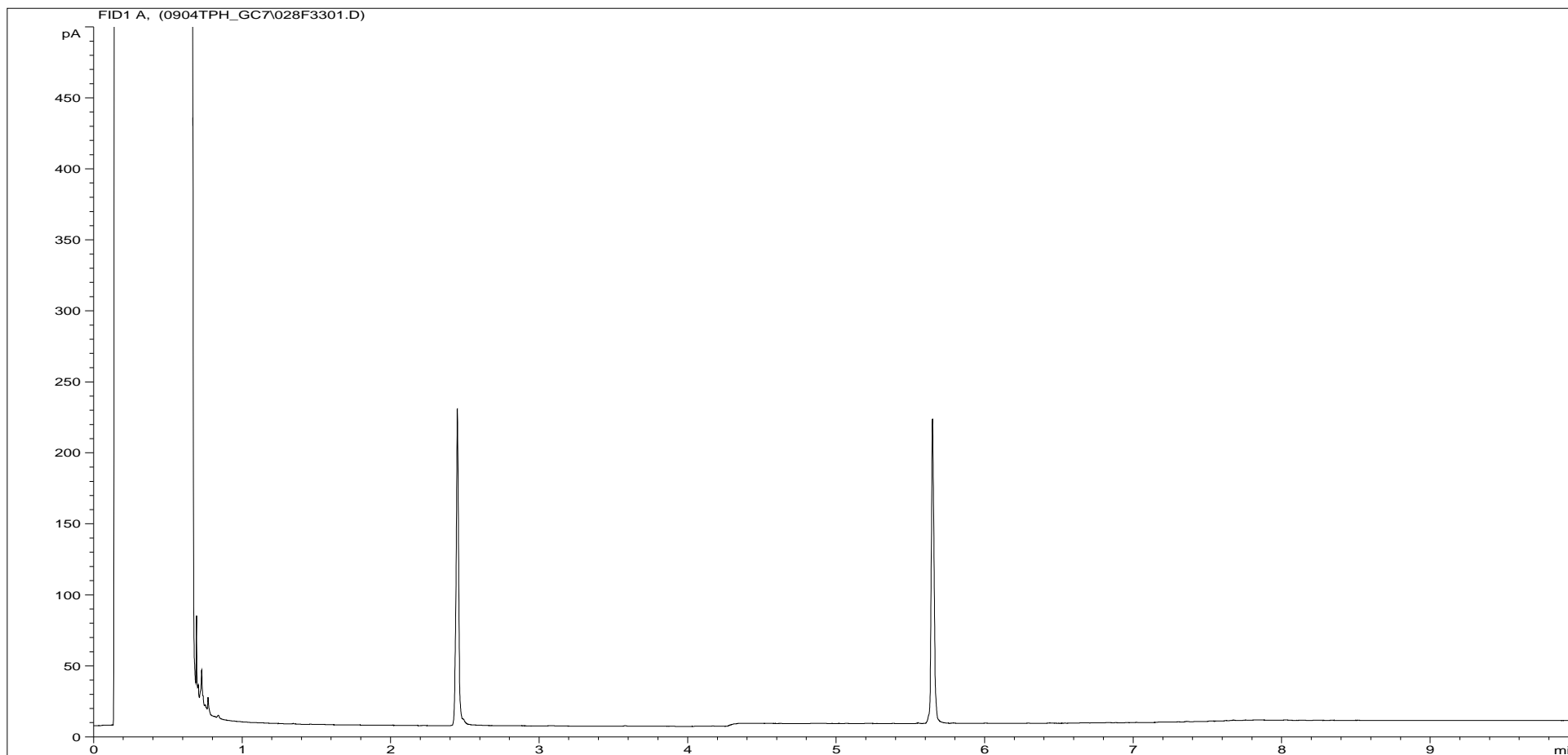
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



Sample ID:	CL0825197ARO	Job Number:	S08_5458M
Multiplier:	11.78	Client:	RPS Consultants
Dilution:	1	Site:	Awe Burghfield
Acquisition Method:	5UL_RUNFNORACE.M	Client Sample Ref:	TP8F-007 0.0-0.6
Acquisition Date/Time:	05-Sep-08		
Datafile:	D:\TES\DATA\Y2008\0904TPH_GC7\077B3201.D		

Where individual results are flagged see report notes for for status.

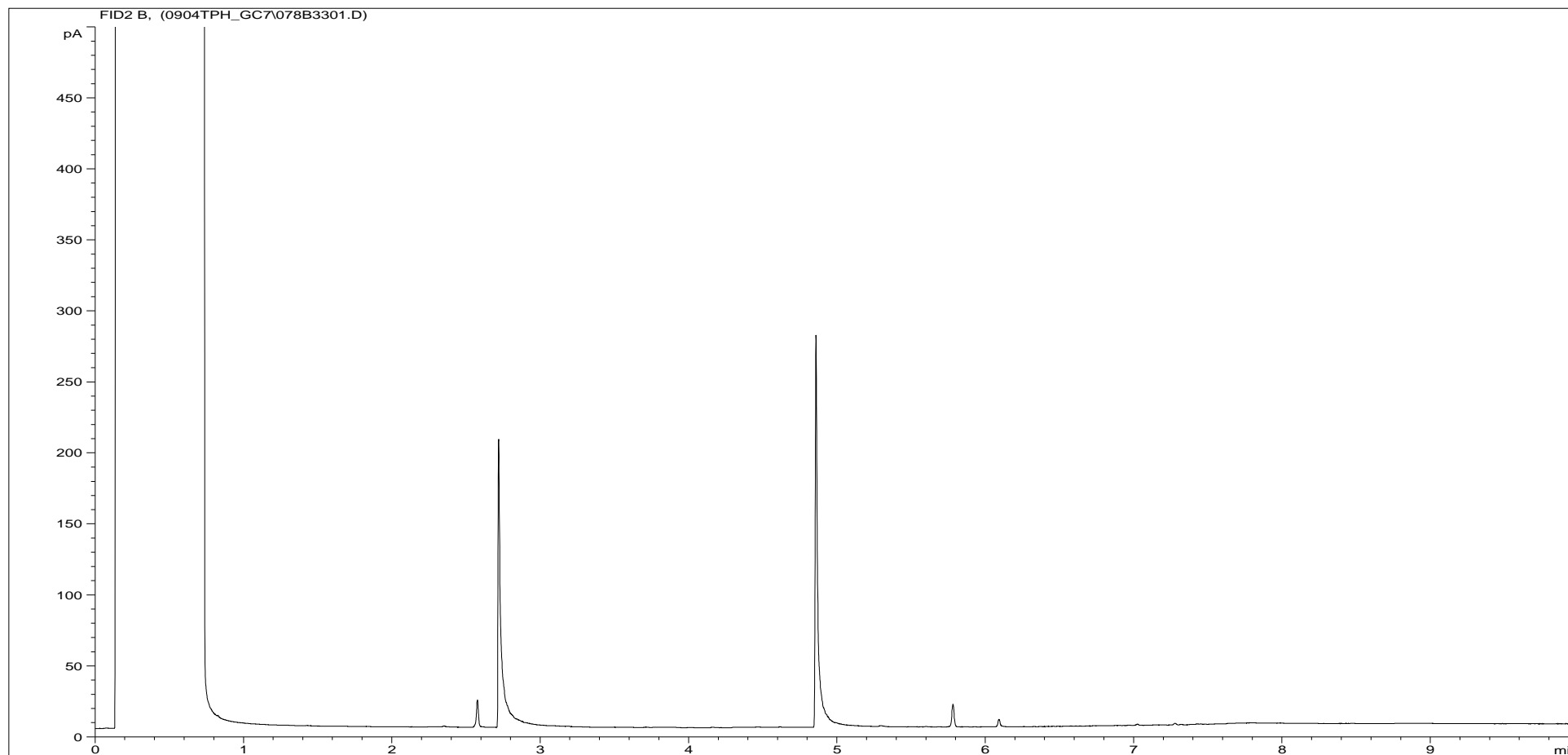
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



Sample ID:	CL0825198ALI	Job Number:	S08_5458M
Multiplier:	15.2	Client:	RPS Consultants
Dilution:	1	Site:	Awe Burghfield
Acquisition Method:	5UL_RUNFNORACE.M	Client Sample Ref:	TP8F-016 0.2-0.4
Acquisition Date/Time:	05-Sep-08		
Datafile:	D:\TES\DATA\Y2008\0904TPH_GC7\028F3301.D		

Where individual results are flagged see report notes for for status.

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



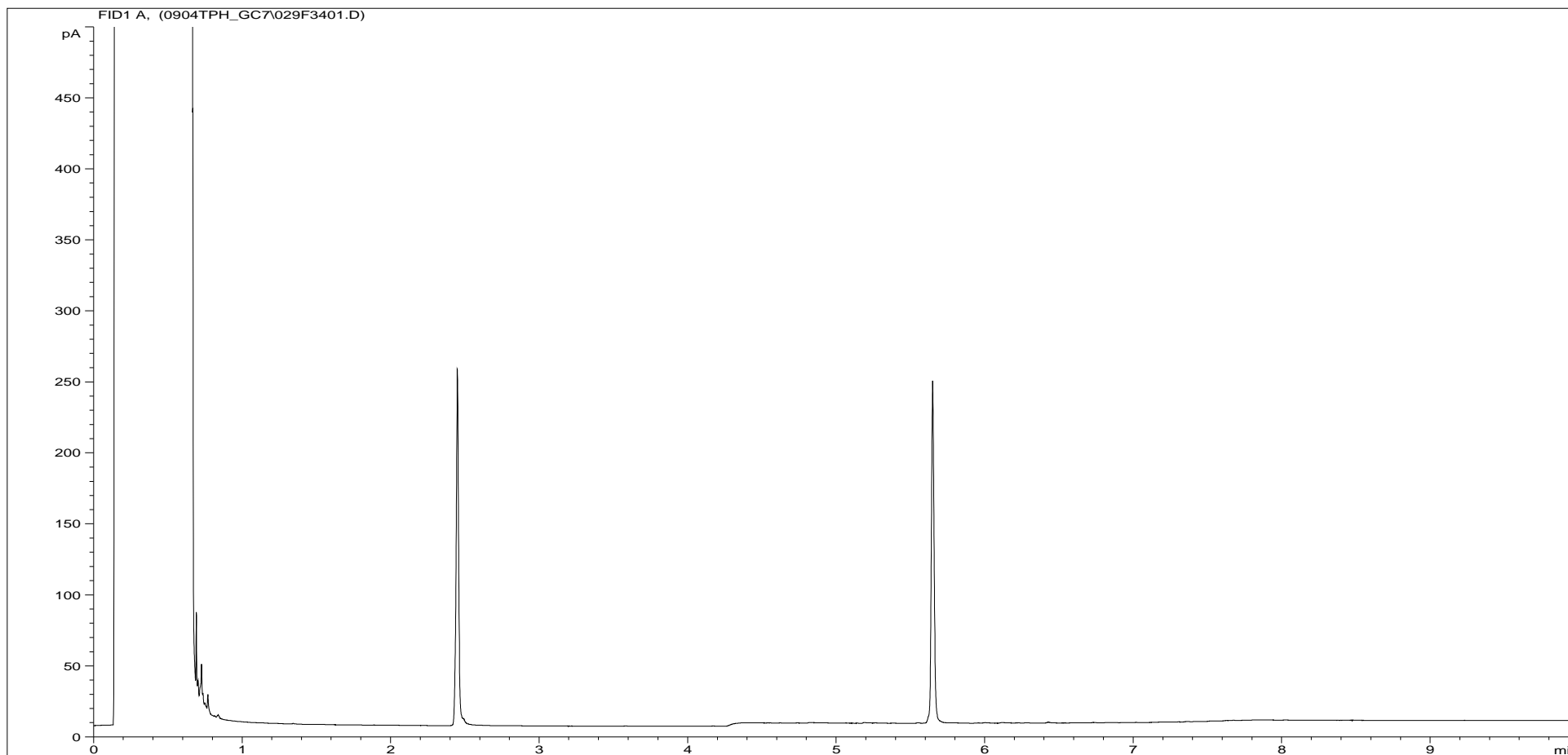
Sample ID:	CL0825198ARO	Job Number:	S08_5458M
Multiplier:	11.4	Client:	RPS Consultants
Dilution:	1	Site:	Awe Burghfield
Acquisition Method:	5UL_RUNFNORACE.M	Client Sample Ref:	TP8F-016 0.2-0.4
Acquisition Date/Time:	05-Sep-08		
Datafile:	D:\TES\DATA\Y2008\0904TPH_GC7\078B3301.D		

Where individual results are flagged see report notes for for status.

Results corrected to dry weight at 105°C where appr opriate, in accordance with the MCERTS standard.

EFS/085458M Ver. 2

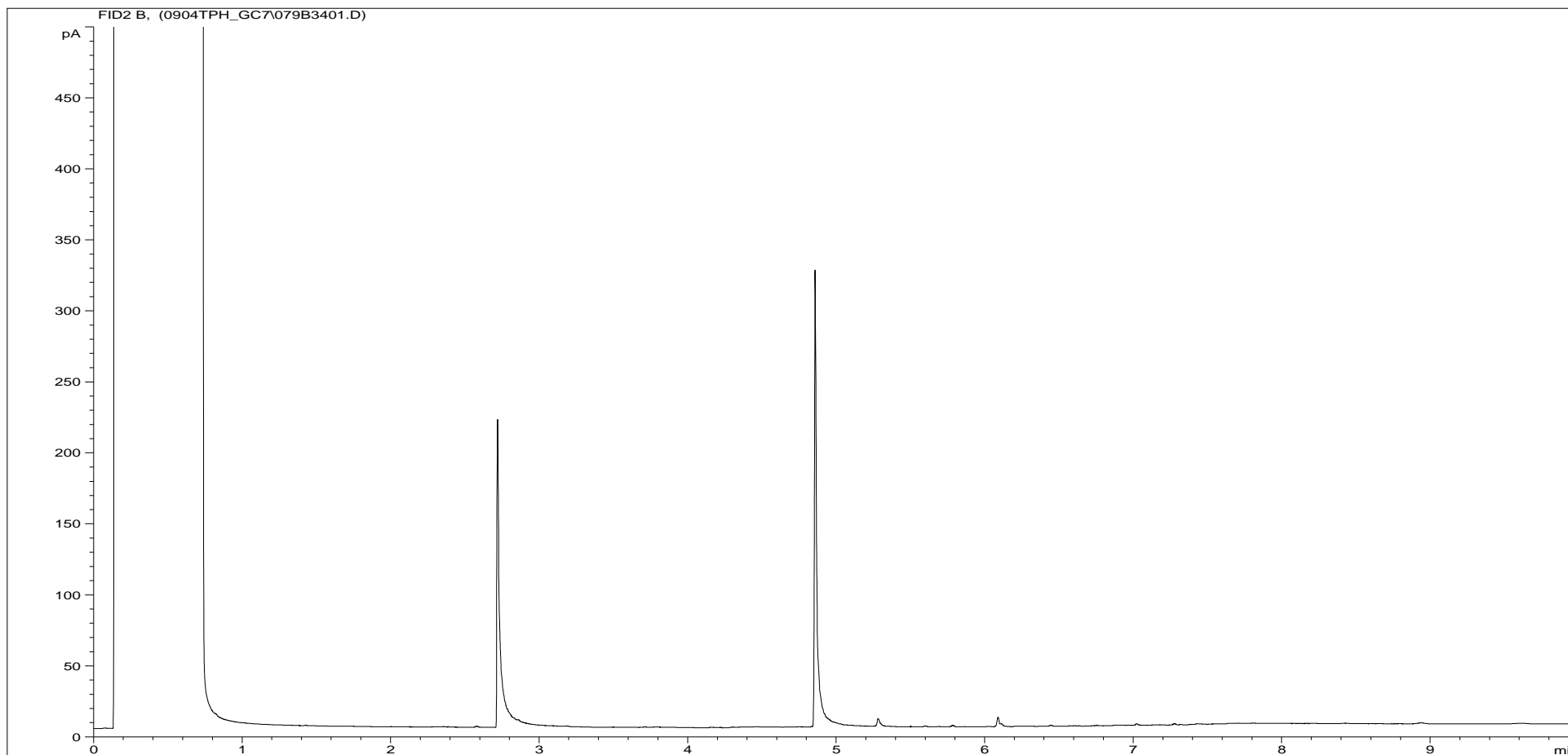
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



Sample ID:	CL0825199ALI	Job Number:	S08_5458M
Multiplier:	15.2	Client:	RPS Consultants
Dilution:	1	Site:	Awe Burghfield
Acquisition Method:	5UL_RUNFNORACE.M	Client Sample Ref:	TP8F-005 0.1-0.3
Acquisition Date/Time:	05-Sep-08		
Datafile:	D:\TES\DATA\Y2008\0904TPH_GC7\029F3401.D		

Where individual results are flagged see report notes for for status.

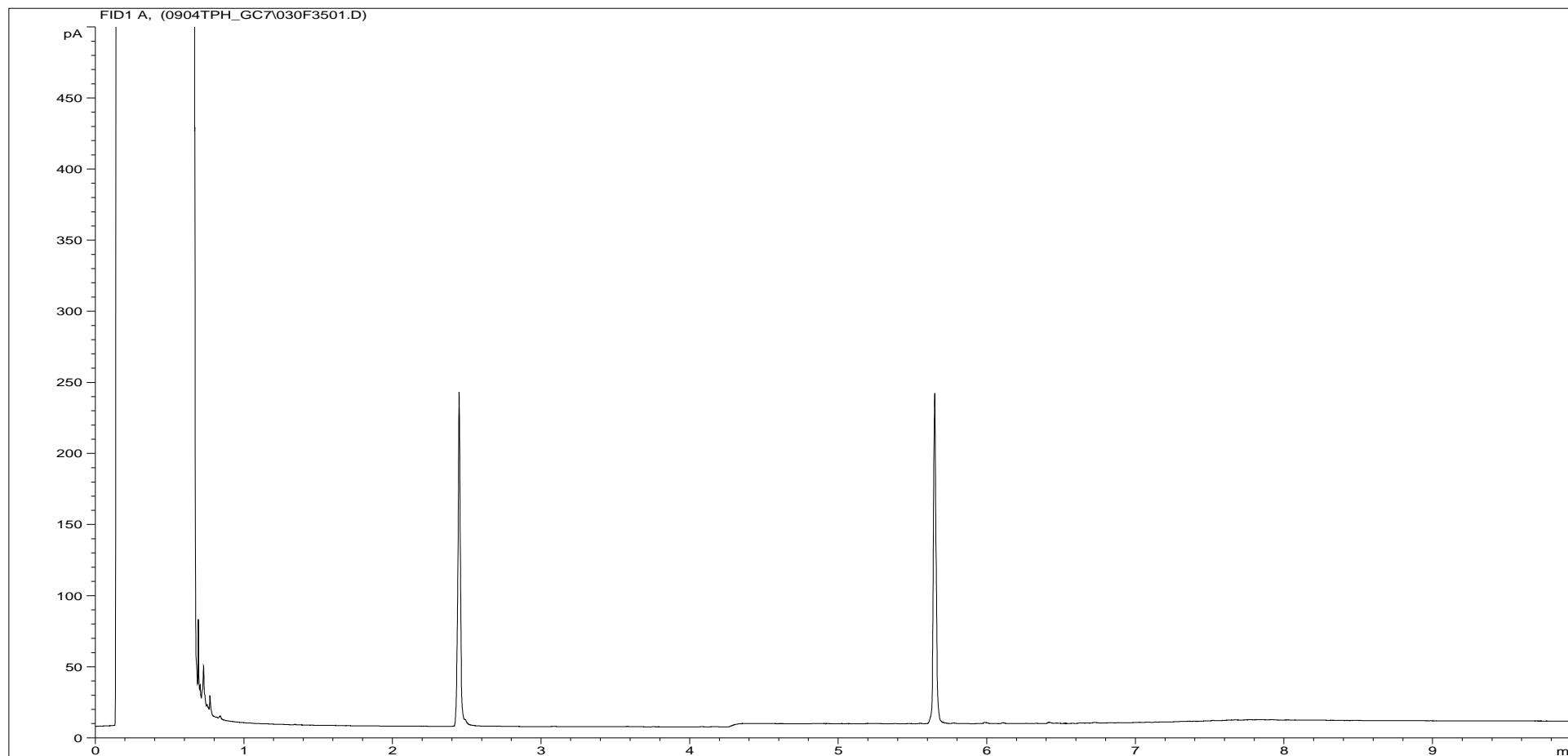
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



Sample ID:	CL0825199ARO	Job Number:	S08_5458M
Multiplier:	11.78	Client:	RPS Consultants
Dilution:	1	Site:	Awe Burghfield
Acquisition Method:	5UL_RUNFNORACE.M	Client Sample Ref:	TP8F-005 0.1-0.3
Acquisition Date/Time:	05-Sep-08		
Datafile:	D:\TES\DATA\Y2008\0904TPH_GC7\079B3401.D		

Where individual results are flagged see report notes for for status.

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.

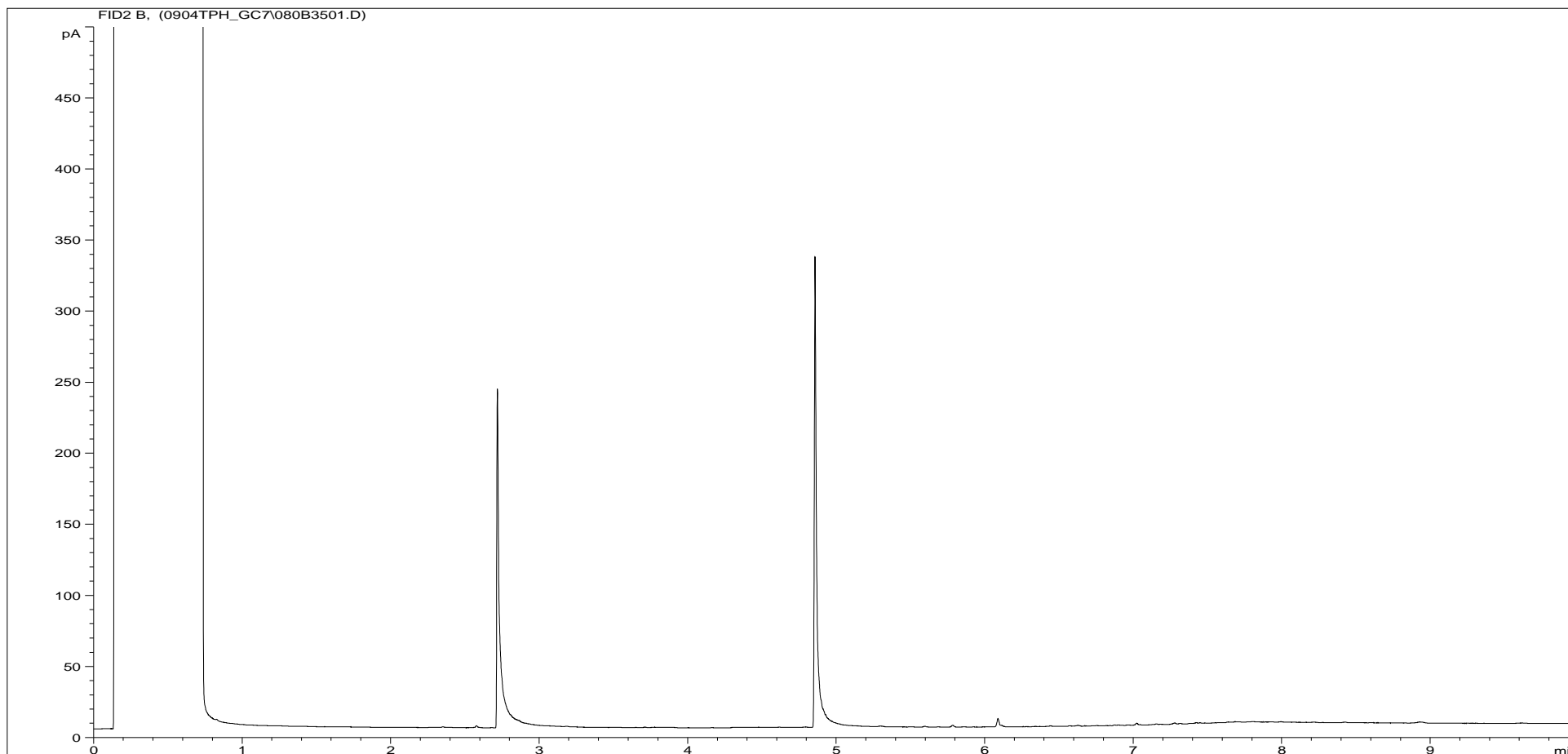


Sample ID:	CL0825200ALI	Job Number:	S08_5458M
Multiplier:	15.58	Client:	RPS Consultants
Dilution:	1	Site:	Awe Burghfield
Acquisition Method:	5UL_RUNFNORACE.M	Client Sample Ref:	TP8F-006 0.1-0.3
Acquisition Date/Time:	05-Sep-08		
Datafile:	D:\TES\DATA\Y2008\0904TPH_GC7\030F3501.D		

Where individual results are flagged see report notes for for status.

Results corrected to dry weight at 105°C where appr opriate, in accordance with the MCERTS standard.

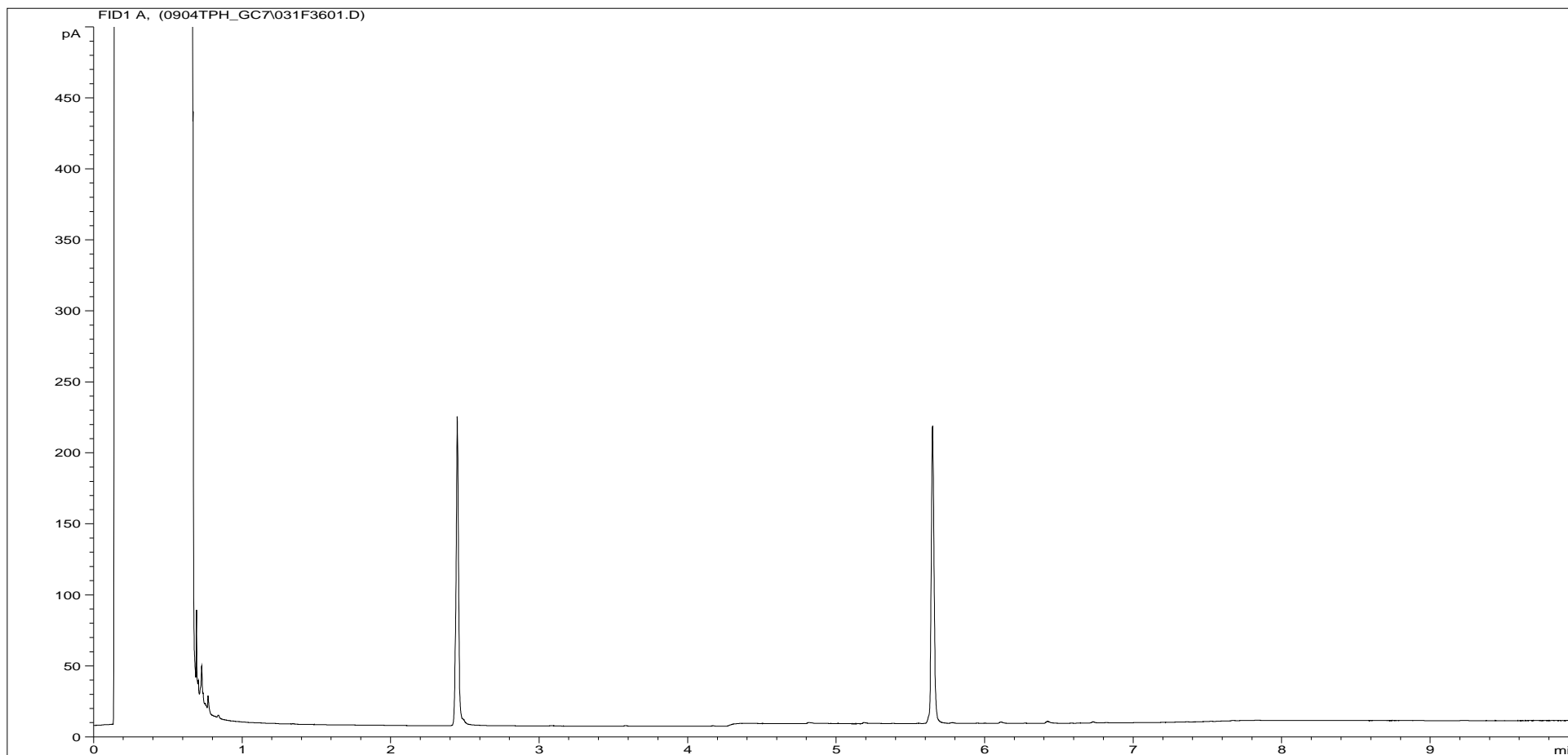
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



Sample ID:	CL0825200ARO	Job Number:	S08_5458M
Multiplier:	11.4	Client:	RPS Consultants
Dilution:	1	Site:	Awe Burghfield
Acquisition Method:	5UL_RUNFNORACE.M	Client Sample Ref:	TP8F-006 0.1-0.3
Acquisition Date/Time:	05-Sep-08		
Datafile:	D:\TES\DATA\Y2008\0904TPH_GC7\080B3501.D		

Where individual results are flagged see report notes for for status.

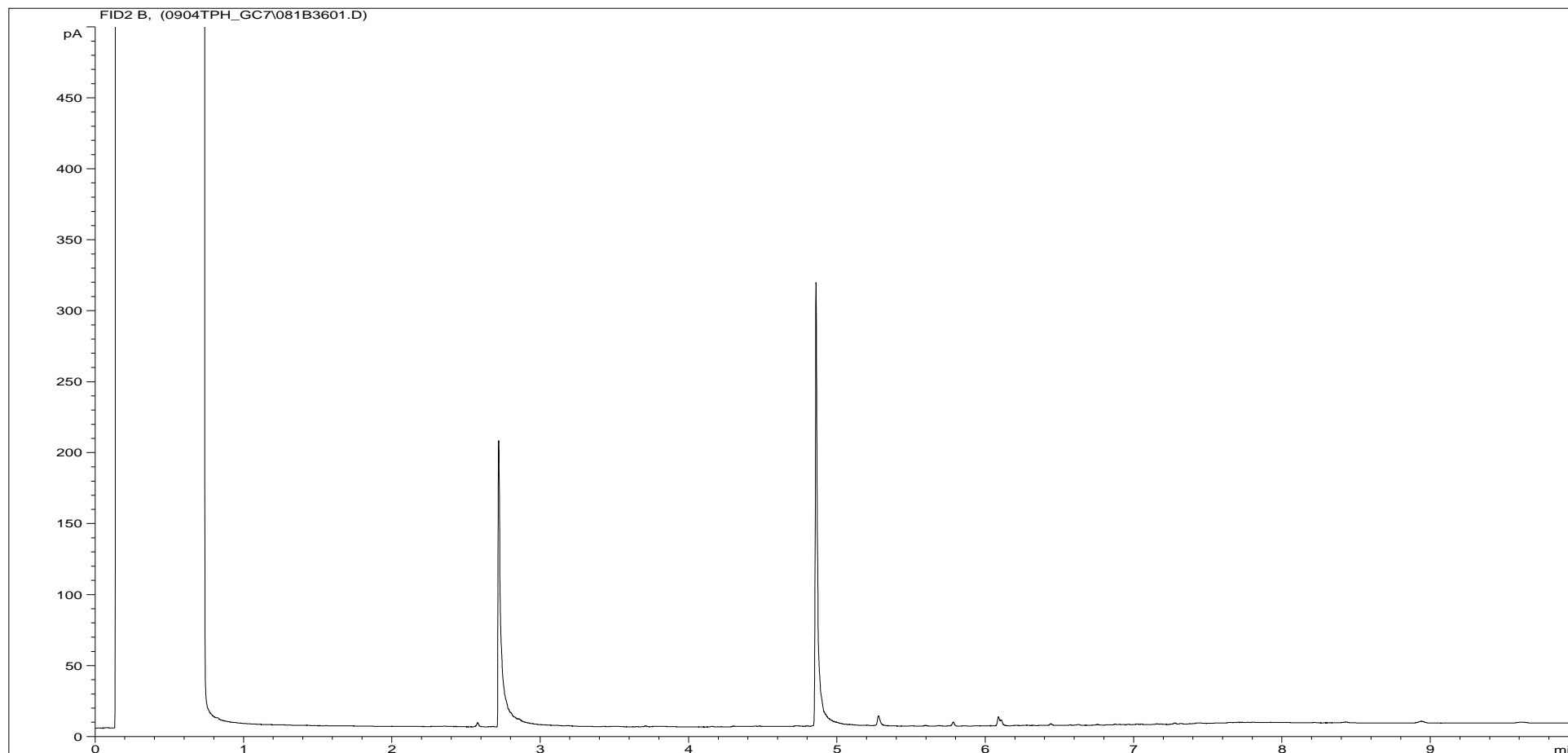
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



Sample ID:	CL0825201ALI	Job Number:	S08_5458M
Multiplier:	15.2	Client:	RPS Consultants
Dilution:	1	Site:	Awe Burghfield
Acquisition Method:	5UL_RUNFNORACE.M	Client Sample Ref:	TP8F-010 0.0-0.8
Acquisition Date/Time:	05-Sep-08		
Datafile:	D:\TES\DATA\Y2008\0904TPH_GC7\031F3601.D		

Where individual results are flagged see report notes for for status.

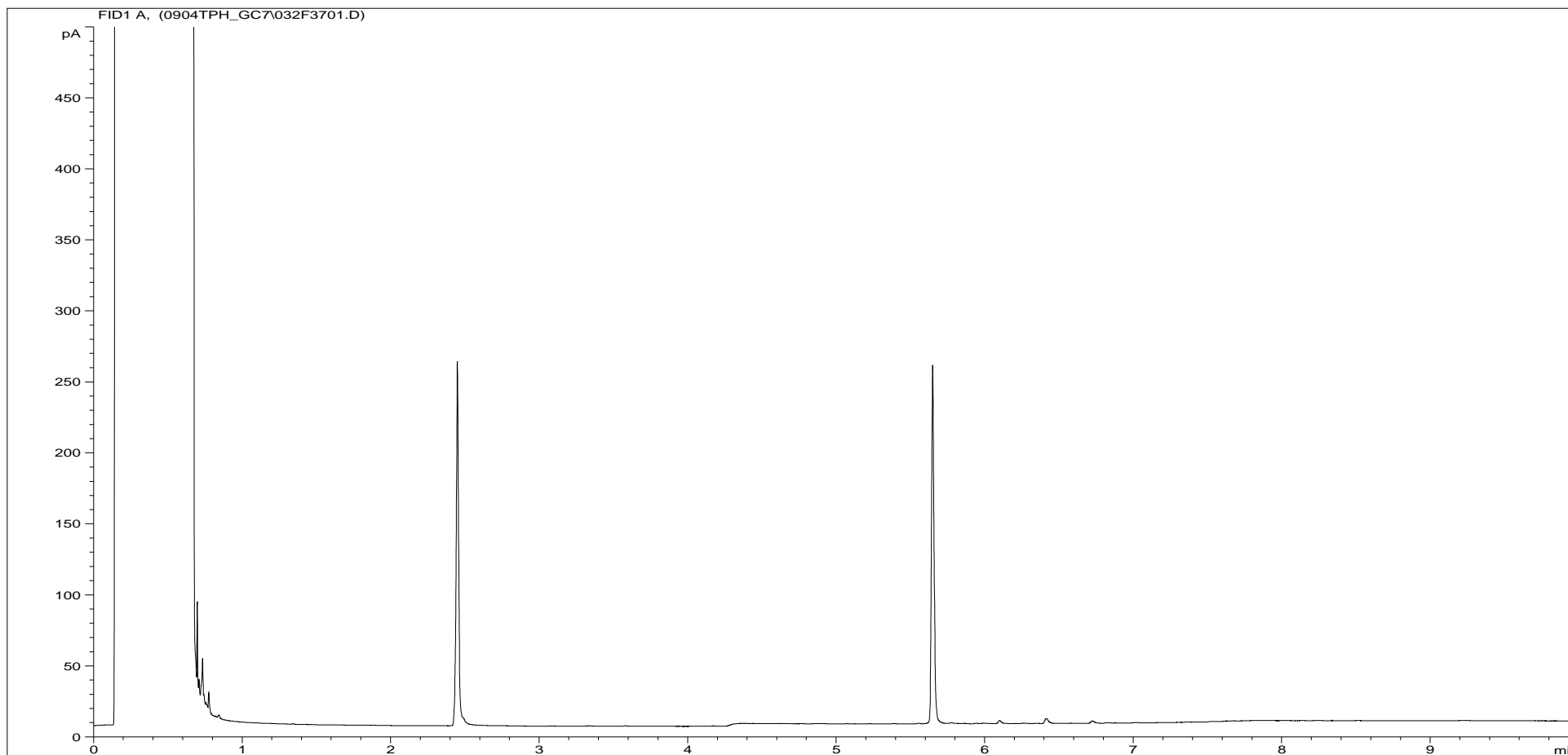
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



Sample ID:	CL0825201ARO	Job Number:	S08_5458M
Multiplier:	11.4	Client:	RPS Consultants
Dilution:	1	Site:	Awe Burghfield
Acquisition Method:	5UL_RUNFNORACE.M	Client Sample Ref:	TP8F-010 0.0-0.8
Acquisition Date/Time:	05-Sep-08		
Datafile:	D:\TES\DATA\Y2008\0904TPH_GC7\081B3601.D		

Where individual results are flagged see report notes for for status.

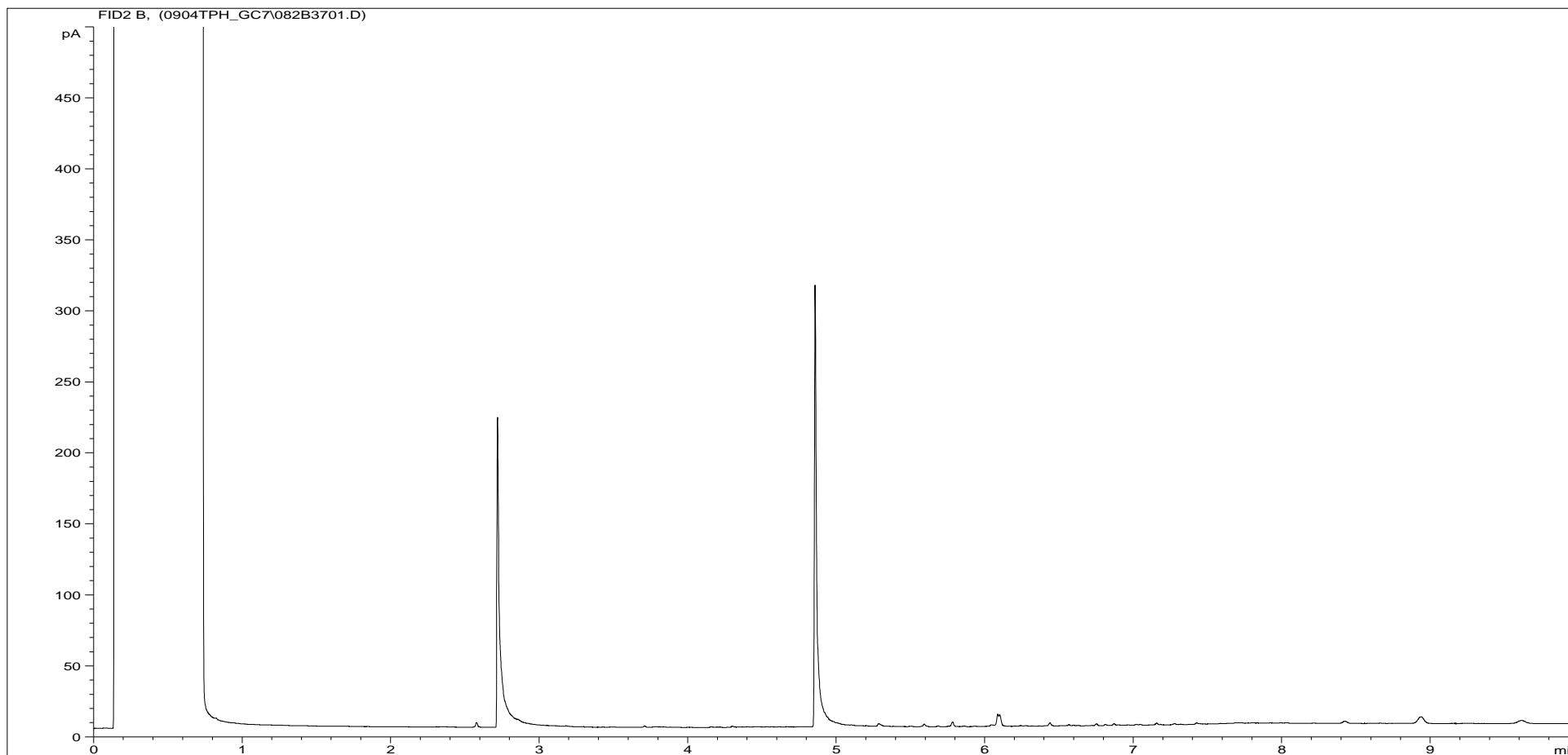
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



Sample ID:	CL0825202ALI	Job Number:	S08_5458M
Multiplier:	15.2	Client:	RPS Consultants
Dilution:	1	Site:	Awe Burghfield
Acquisition Method:	5UL_RUNFNORACE.M	Client Sample Ref:	BH8F-002 0.6
Acquisition Date/Time:	05-Sep-08		
Datafile:	D:\TES\DATA\Y2008\0904TPH_GC7\032F3701.D		

Where individual results are flagged see report notes for for status.

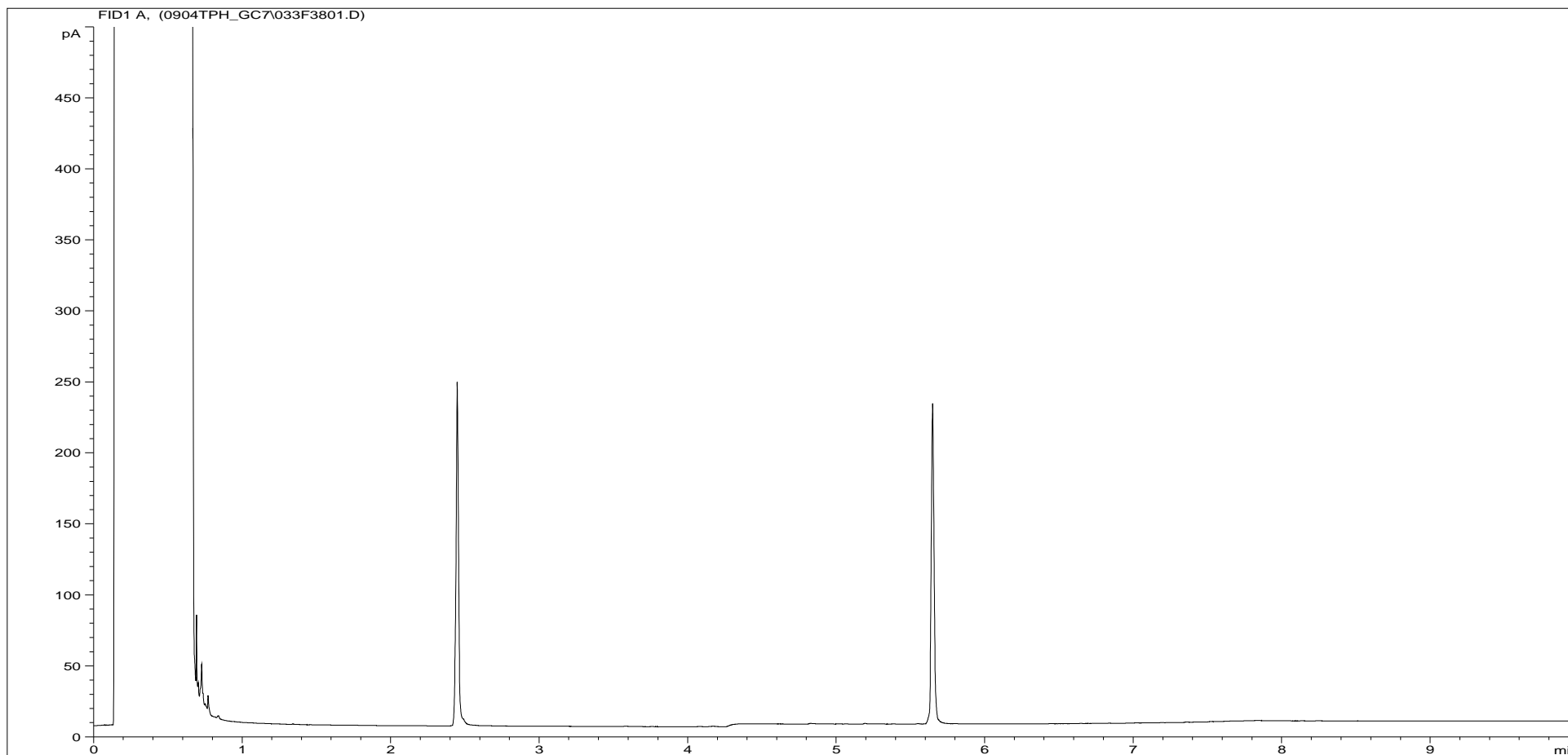
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



Sample ID:	CL0825202ARO	Job Number:	S08_5458M
Multiplier:	11.4	Client:	RPS Consultants
Dilution:	1	Site:	Awe Burghfield
Acquisition Method:	5UL_RUNFNORACE.M	Client Sample Ref:	BH8F-002 0.6
Acquisition Date/Time:	05-Sep-08		
Datafile:	D:\TES\DATA\Y2008\0904TPH_GC7\082B3701.D		

Where individual results are flagged see report notes for for status.

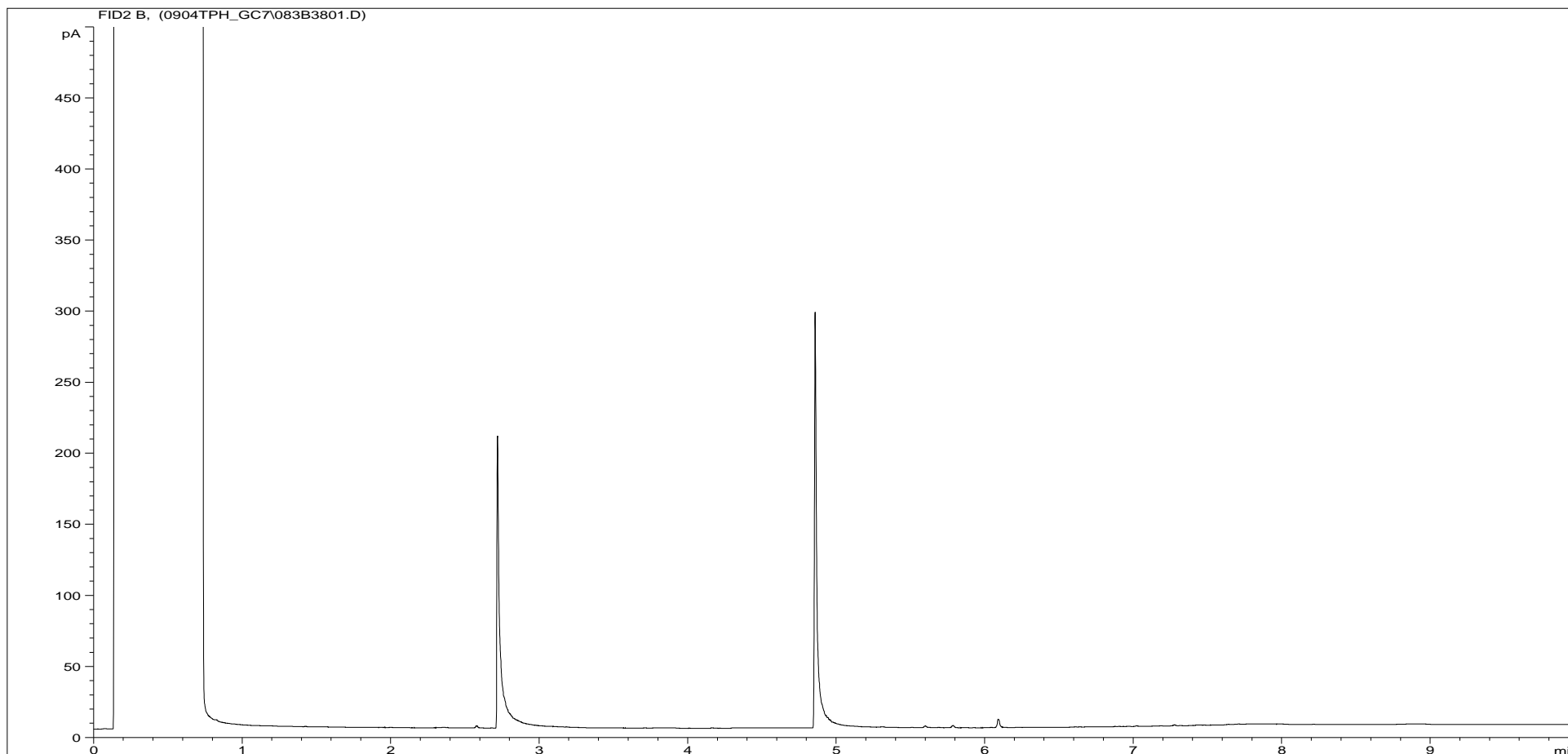
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



Sample ID:	CL0825203ALI	Job Number:	S08_5458M
Multiplier:	15.2	Client:	RPS Consultants
Dilution:	1	Site:	Awe Burghfield
Acquisition Method:	5UL_RUNFNORACE.M	Client Sample Ref:	BH8F-003 0.5-0.8
Acquisition Date/Time:	05-Sep-08		
Datafile:	D:\TES\DATA\Y2008\0904TPH_GC7\033F3801.D		

Where individual results are flagged see report notes for for status.

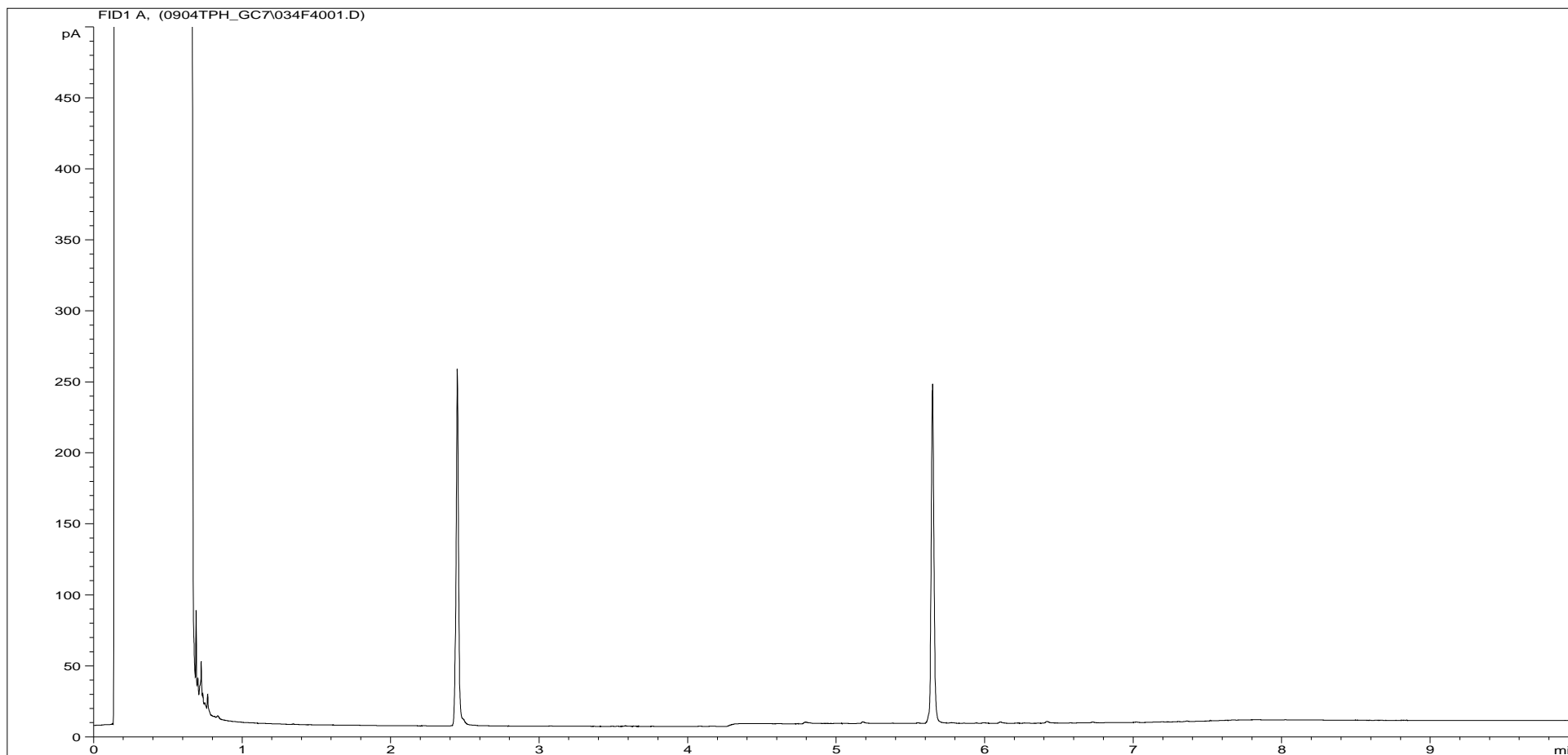
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



Sample ID:	CL0825203ARO	Job Number:	S08_5458M
Multiplier:	11.78	Client:	RPS Consultants
Dilution:	1	Site:	Awe Burghfield
Acquisition Method:	5UL_RUNFNORACE.M	Client Sample Ref:	BH8F-003 0.5-0.8
Acquisition Date/Time:	05-Sep-08		
Datafile:	D:\TES\DATA\Y2008\0904TPH_GC7\083B3801.D		

Where individual results are flagged see report notes for for status.

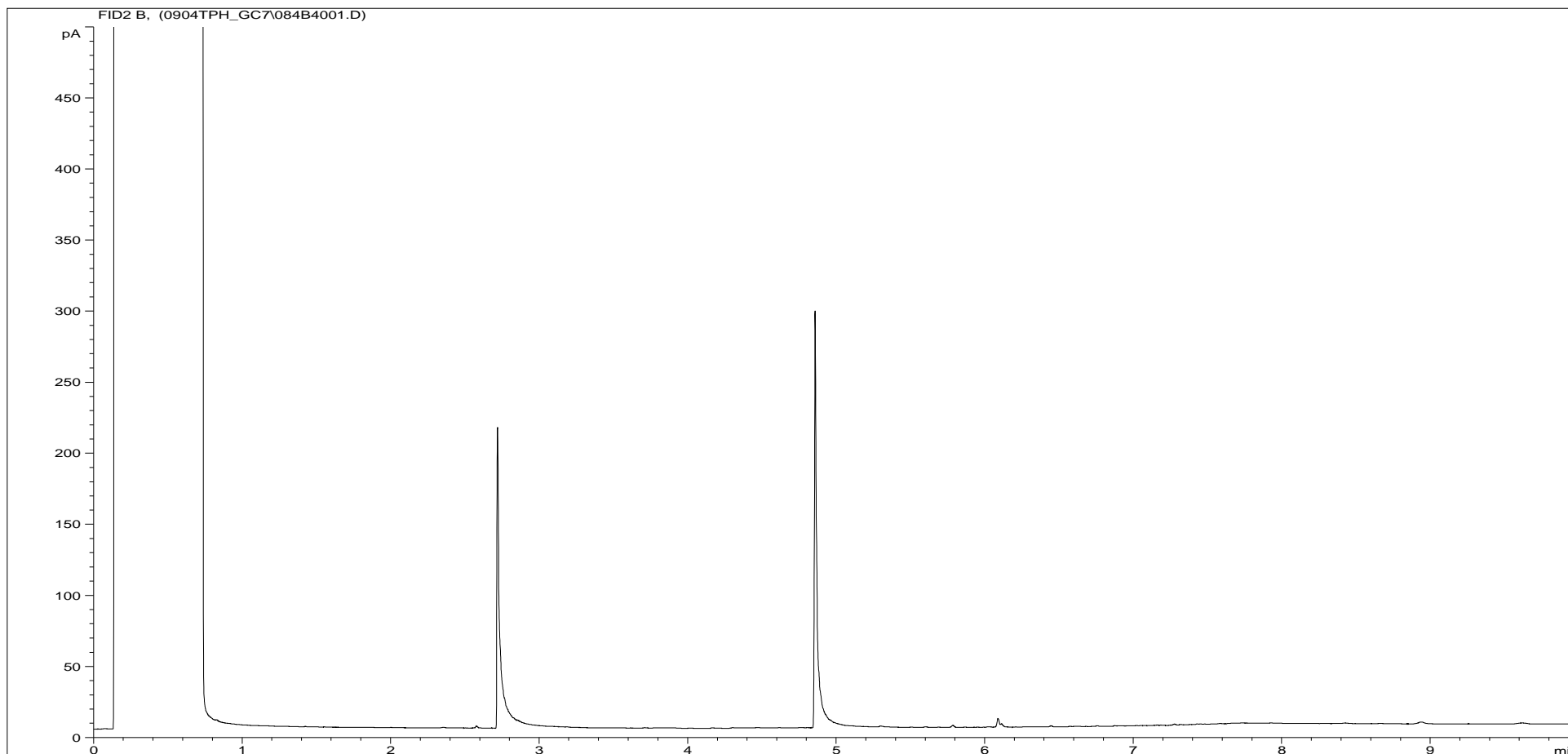
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



Sample ID:	CL0825204ALI	Job Number:	S08_5458M
Multiplier:	15.58	Client:	RPS Consultants
Dilution:	1	Site:	Awe Burghfield
Acquisition Method:	5UL_RUNFNORACE.M	Client Sample Ref:	TP8F-013 0.5-1.0
Acquisition Date/Time:	05-Sep-08		
Datafile:	D:\TES\DATA\Y2008\0904TPH_GC7\034F4001.D		

Where individual results are flagged see report notes for for status.

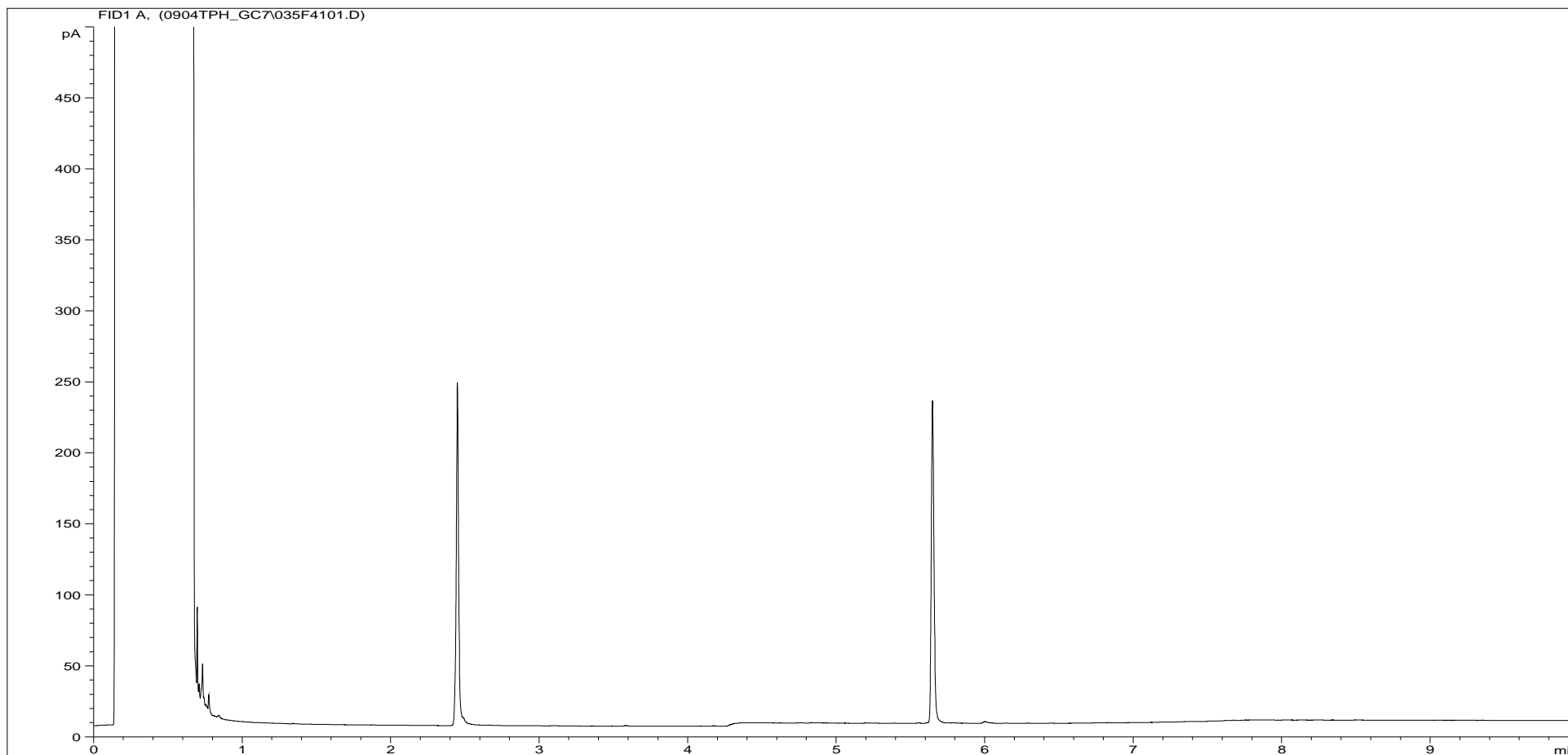
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



Sample ID:	CL0825204ARO	Job Number:	S08_5458M
Multiplier:	11.4	Client:	RPS Consultants
Dilution:	1	Site:	Awe Burghfield
Acquisition Method:	5UL_RUNFNORACE.M	Client Sample Ref:	TP8F-013 0.5-1.0
Acquisition Date/Time:	05-Sep-08		
Datafile:	D:\TES\DATA\Y2008\0904TPH_GC7\084B4001.D		

Where individual results are flagged see report notes for for status.

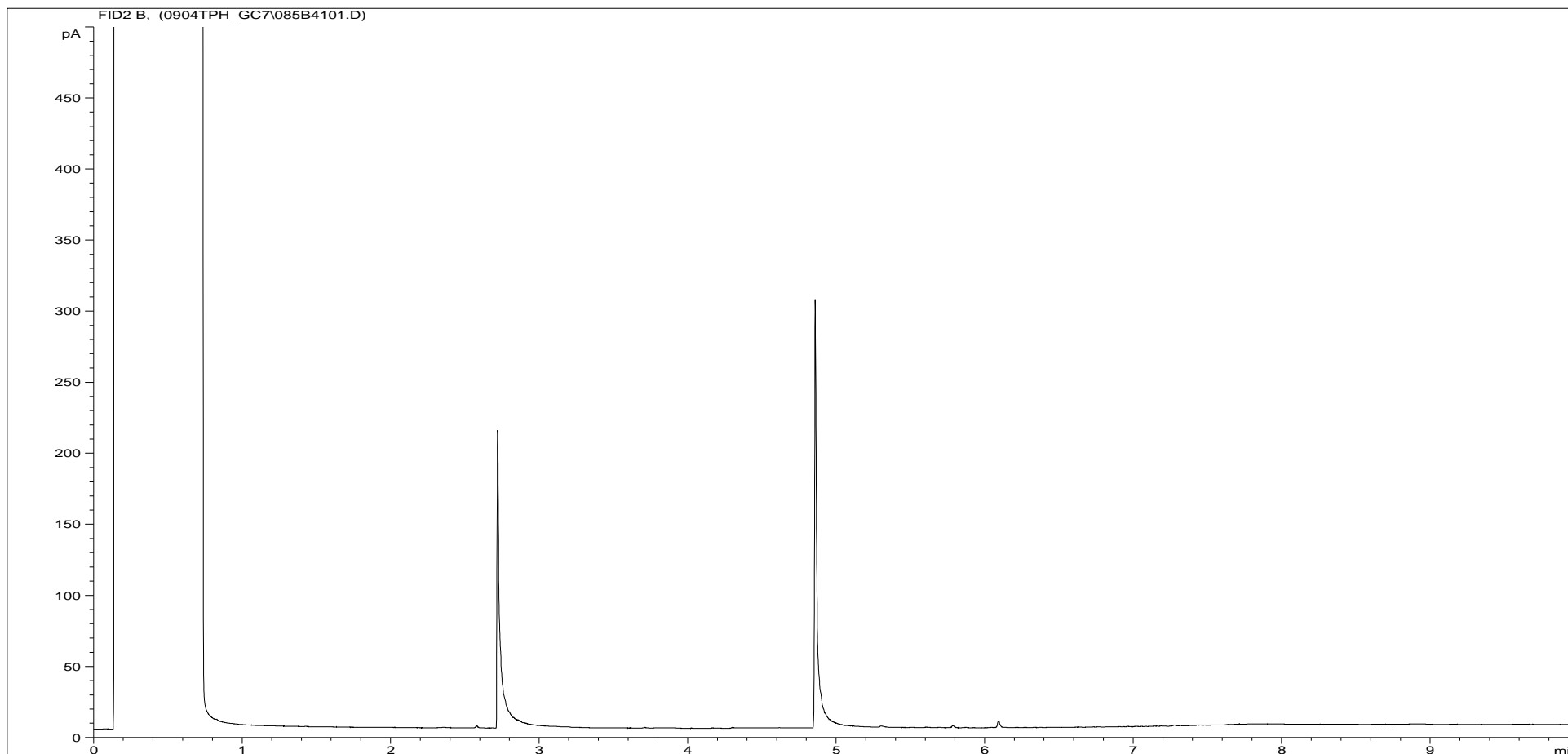
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



Sample ID:	CL0825205ALI	Job Number:	S08_5458M
Multiplier:	15.2	Client:	RPS Consultants
Dilution:	1	Site:	Awe Burghfield
Acquisition Method:	5UL_RUNFNORACE.M	Client Sample Ref:	TP8F-001 0.75
Acquisition Date/Time:	05-Sep-08		
Datafile:	D:\TES\DATA\Y2008\0904TPH_GC7\035F4101.D		

Where individual results are flagged see report notes for for status.

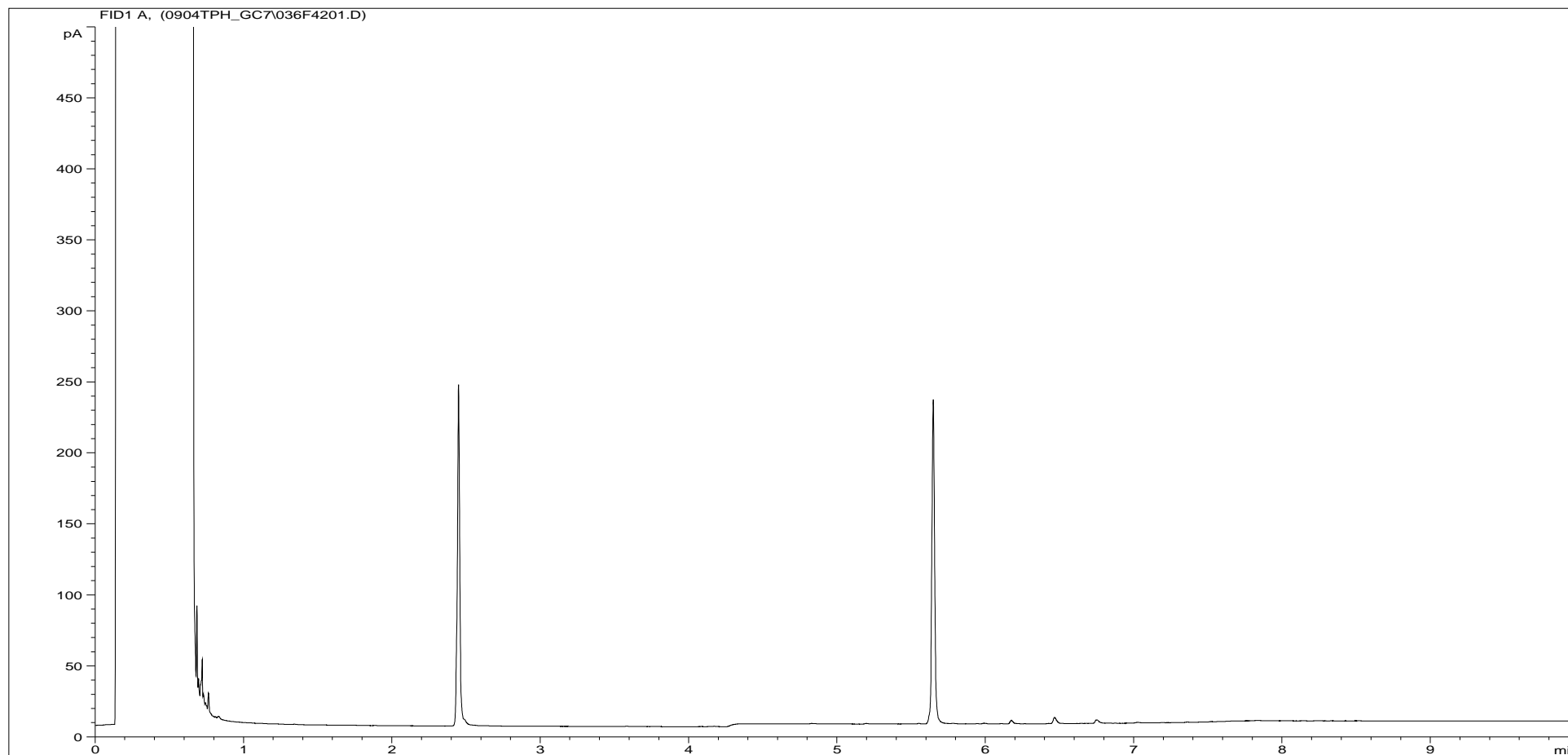
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



Sample ID:	CL0825205ARO	Job Number:	S08_5458M
Multiplier:	11.4	Client:	RPS Consultants
Dilution:	1	Site:	Awe Burghfield
Acquisition Method:	5UL_RUNFNORACE.M	Client Sample Ref:	TP8F-001 0.75
Acquisition Date/Time:	05-Sep-08		
Datafile:	D:\TES\DATA\Y2008\0904TPH_GC7\085B4101.D		

Where individual results are flagged see report notes for for status.

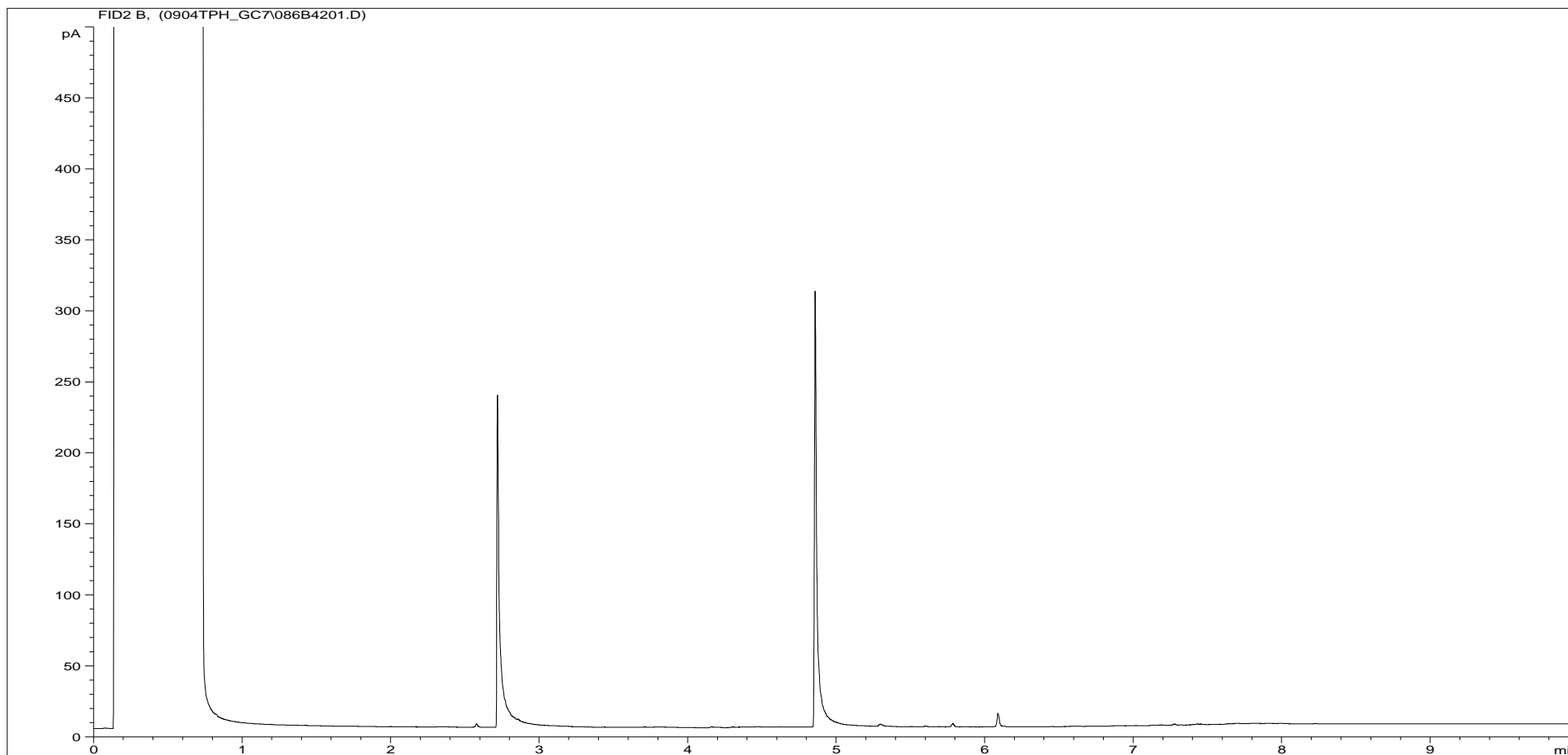
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



Sample ID:	CL0825206ALI	Job Number:	S08_5458M
Multiplier:	15.58	Client:	RPS Consultants
Dilution:	1	Site:	Awe Burghfield
Acquisition Method:	5UL_RUNFNORACE.M	Client Sample Ref:	TP8F-003 0.6
Acquisition Date/Time:	05-Sep-08		
Datafile:	D:\TES\DATA\Y2008\0904TPH_GC7\036F4201.D		

Where individual results are flagged see report notes for for status.

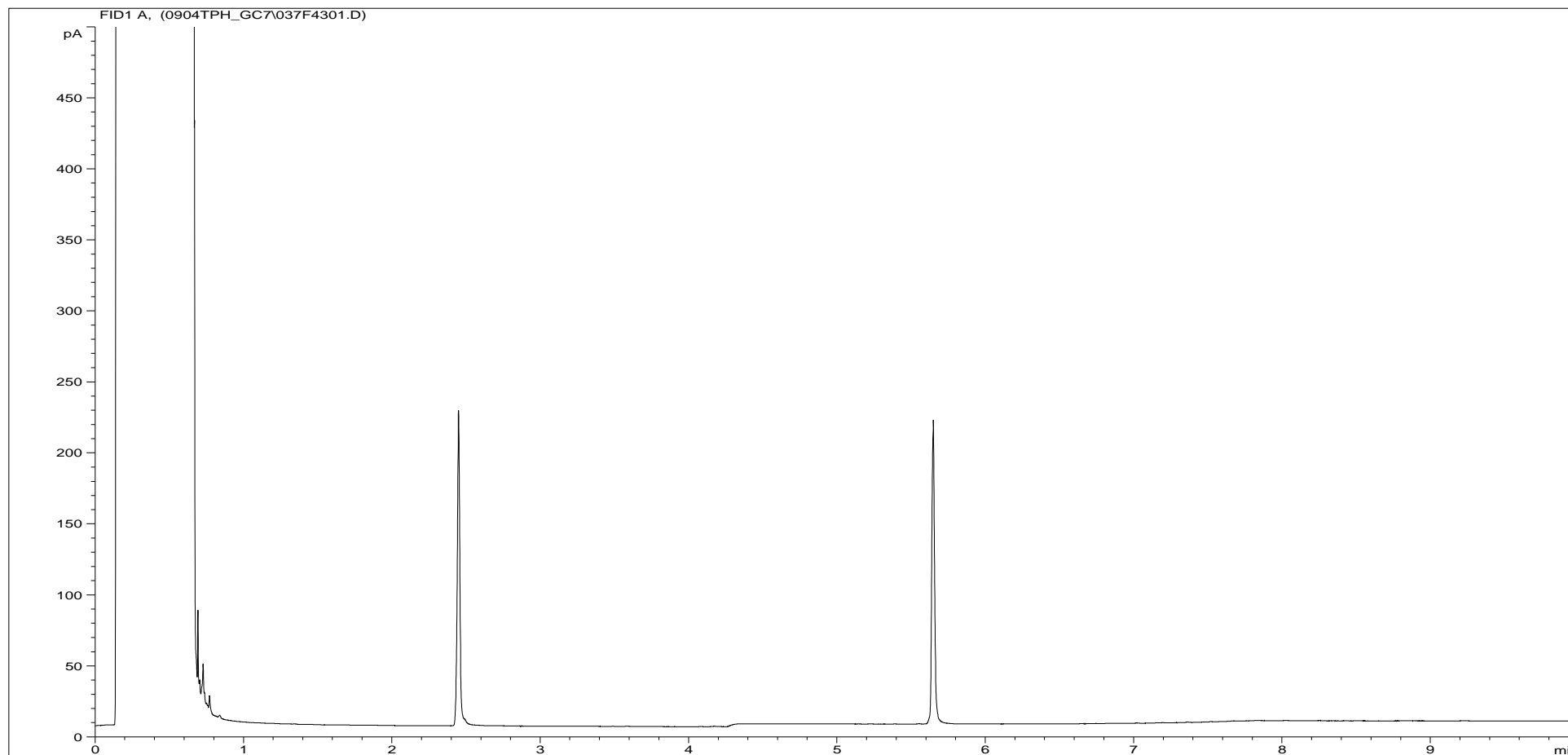
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



Sample ID:	CL0825206ARO	Job Number:	S08_5458M
Multiplier:	11.78	Client:	RPS Consultants
Dilution:	1	Site:	Awe Burghfield
Acquisition Method:	5UL_RUNFNORACE.M	Client Sample Ref:	TP8F-003 0.6
Acquisition Date/Time:	05-Sep-08		
Datafile:	D:\TES\DATA\Y2008\0904TPH_GC7\086B4201.D		

Where individual results are flagged see report notes for for status.

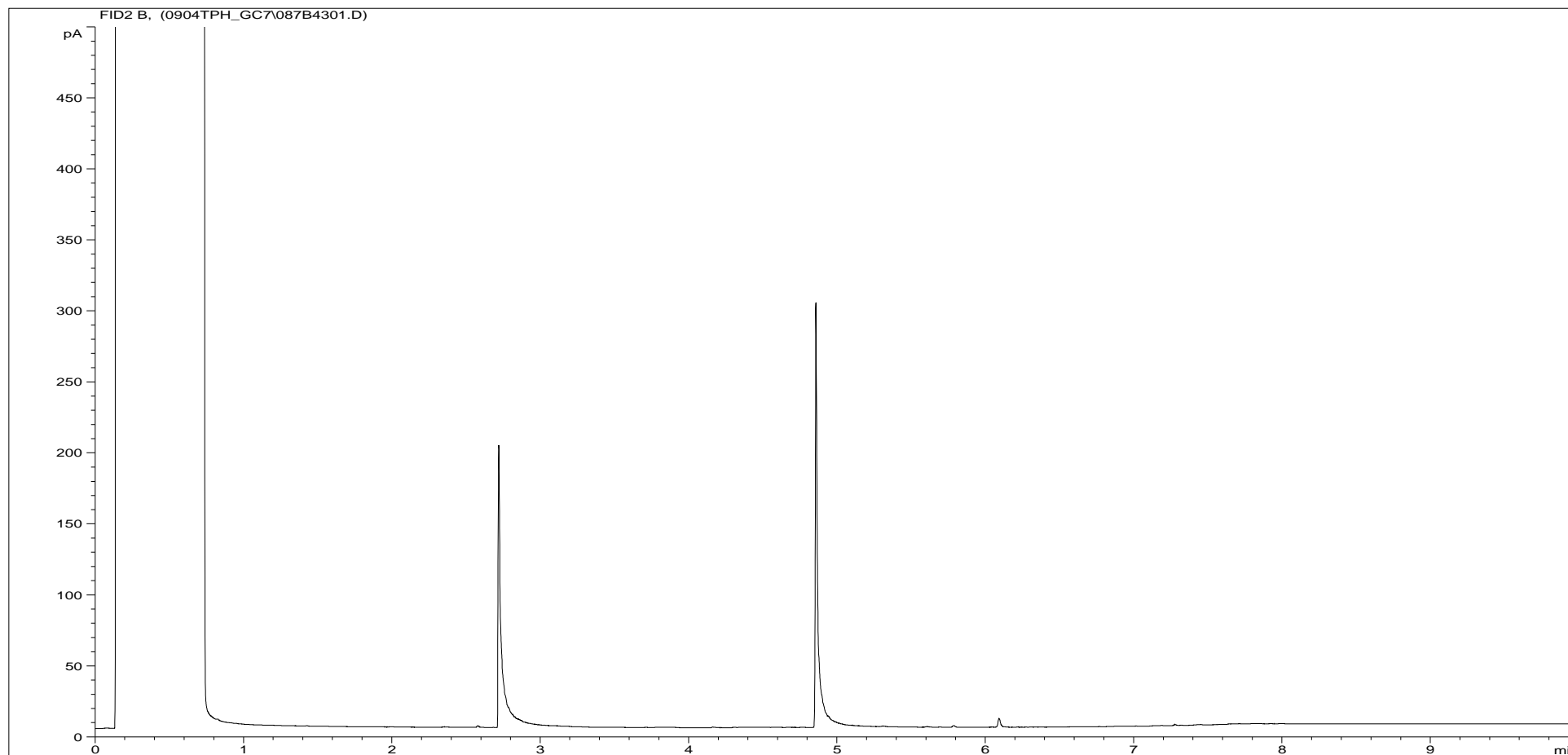
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



Sample ID:	CL0825207ALI	Job Number:	S08_5458M
Multiplier:	15.58	Client:	RPS Consultants
Dilution:	1	Site:	Awe Burghfield
Acquisition Method:	5UL_RUNFNORACE.M	Client Sample Ref:	TP8F-008 1.1
Acquisition Date/Time:	05-Sep-08		
Datafile:	D:\TES\DATA\Y2008\0904TPH_GC7\037F4301.D		

Where individual results are flagged see report notes for for status.

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



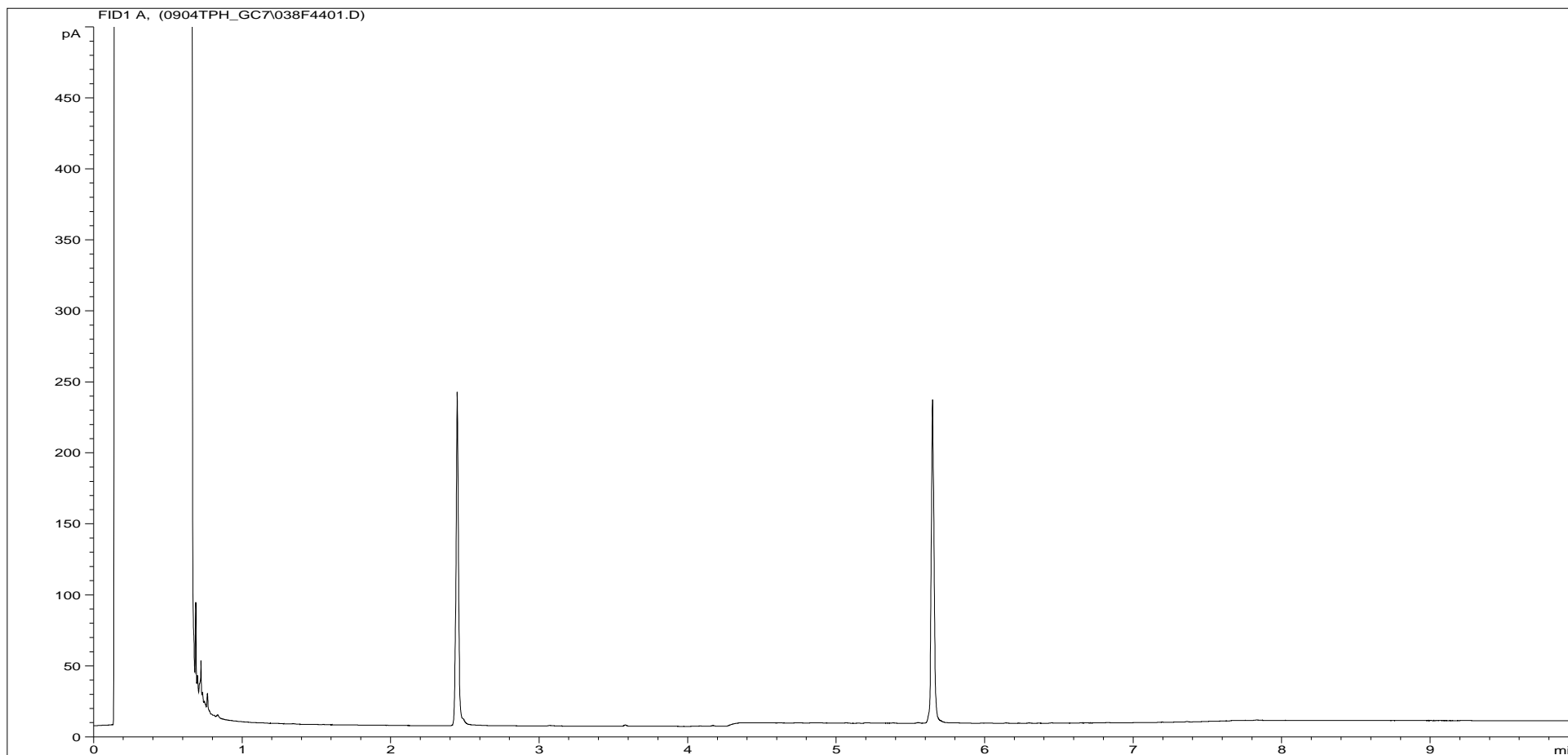
Sample ID:	CL0825207ARO	Job Number:	S08_5458M
Multiplier:	11.78	Client:	RPS Consultants
Dilution:	1	Site:	Awe Burghfield
Acquisition Method:	5UL_RUNFNORACE.M	Client Sample Ref:	TP8F-008 1.1
Acquisition Date/Time:	05-Sep-08		
Datafile:	D:\TES\DATA\Y2008\0904TPH_GC7\087B4301.D		

Where individual results are flagged see report notes for for status.

Results corrected to dry weight at 105°C where appropriate, in accordance with the MCERTS standard.

EFS/085458M Ver. 2

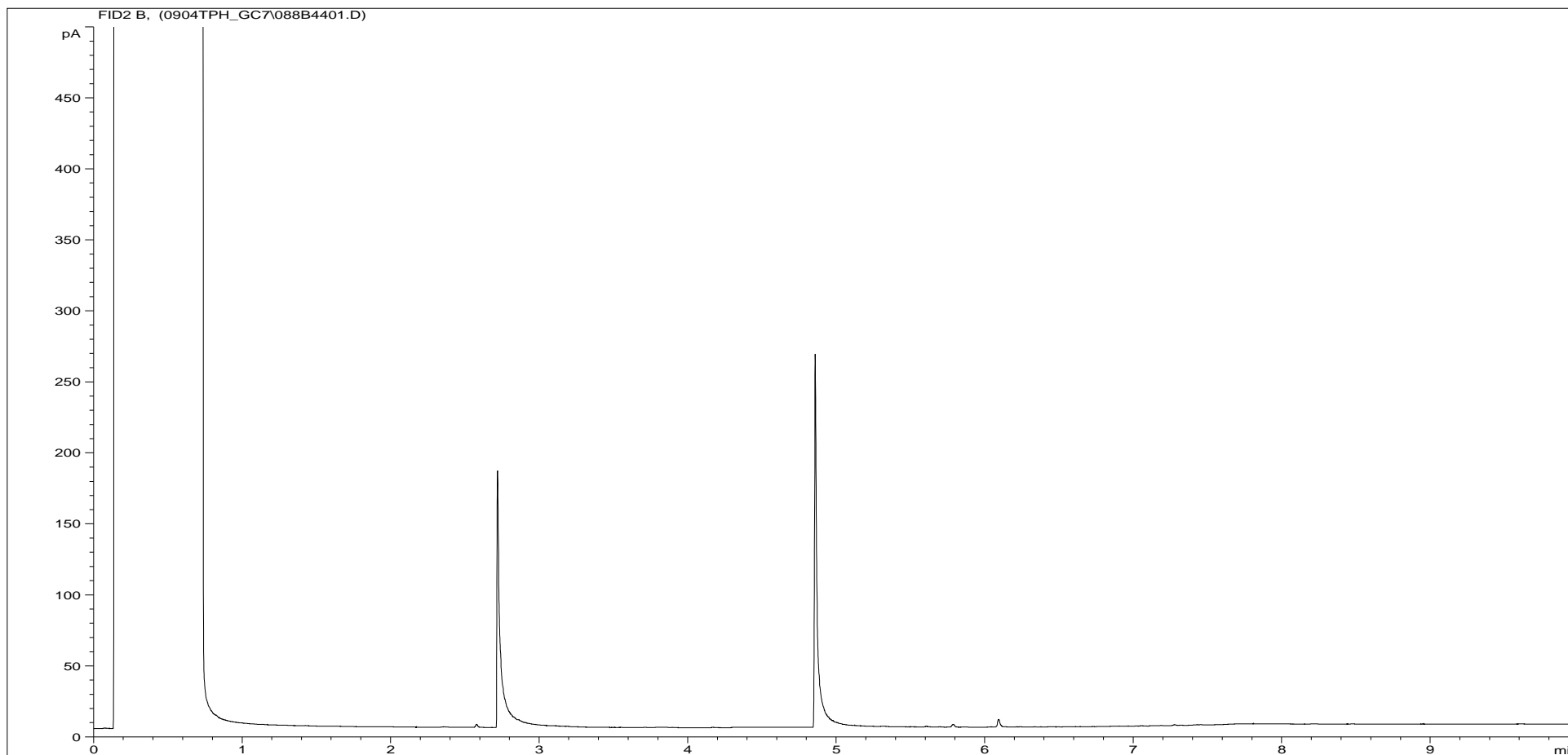
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



Sample ID:	CL0825208ALI	Job Number:	S08_5458M
Multiplier:	15.2	Client:	RPS Consultants
Dilution:	1	Site:	Awe Burghfield
Acquisition Method:	5UL_RUNFNORACE.M	Client Sample Ref:	TP8F-002 0.6
Acquisition Date/Time:	05-Sep-08		
Datafile:	D:\TES\DATA\Y2008\0904TPH_GC7\038F4401.D		

Where individual results are flagged see report notes for for status.

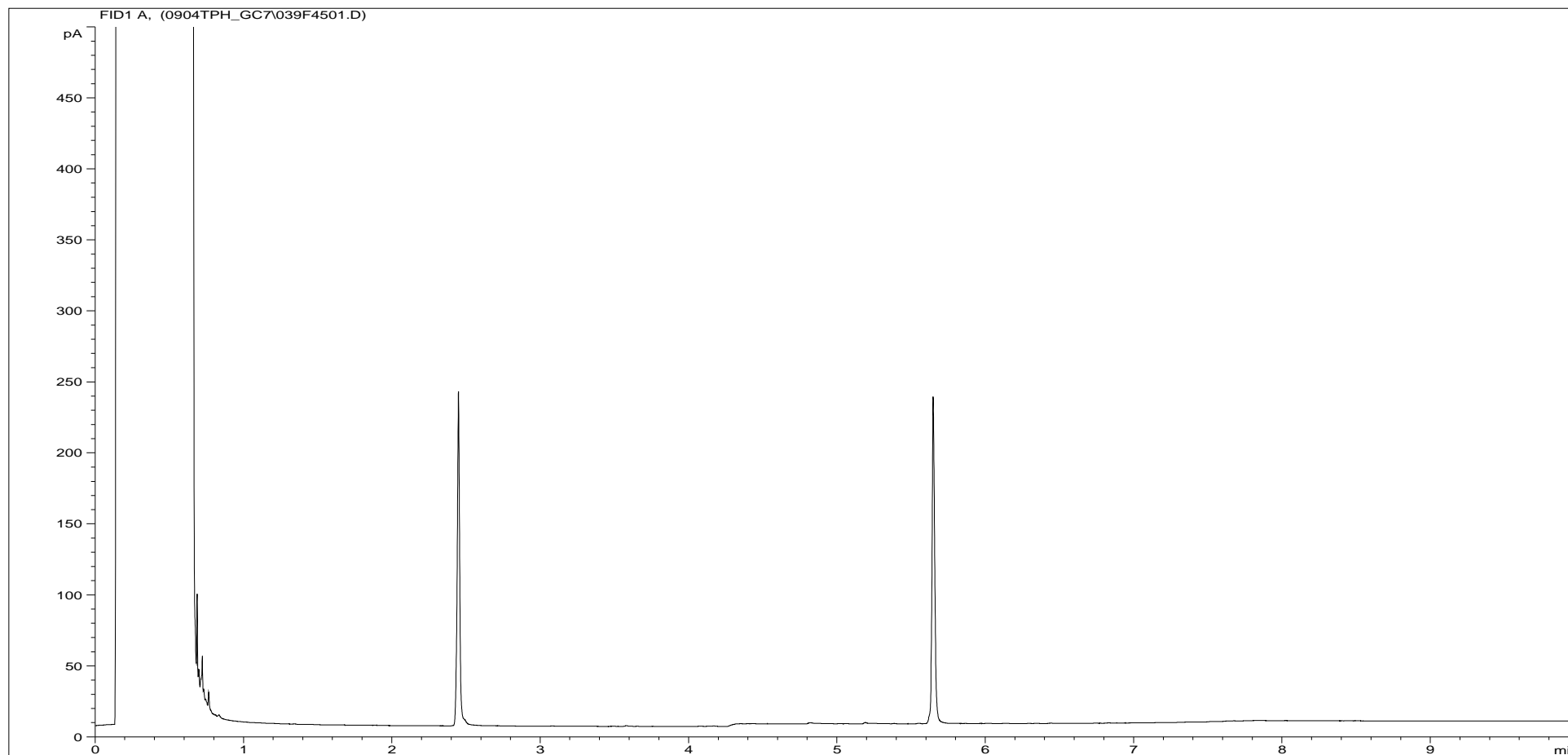
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



Sample ID:	CL0825208ARO	Job Number:	S08_5458M
Multiplier:	11.78	Client:	RPS Consultants
Dilution:	1	Site:	Awe Burghfield
Acquisition Method:	5UL_RUNFNORACE.M	Client Sample Ref:	TP8F-002 0.6
Acquisition Date/Time:	05-Sep-08		
Datafile:	D:\TES\DATA\Y2008\0904TPH_GC7\088B4401.D		

Where individual results are flagged see report notes for for status.

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



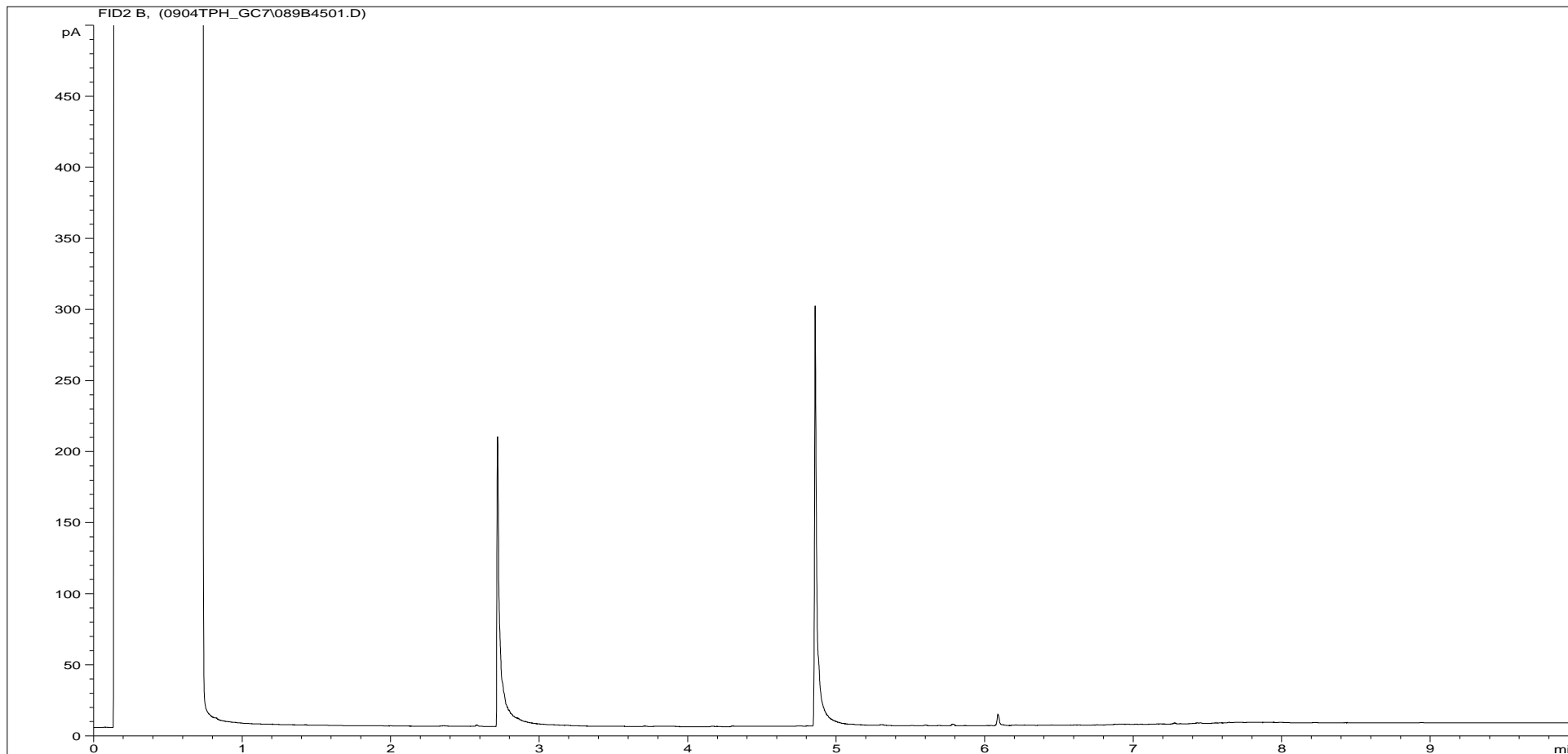
Sample ID:	CL0825209ALI	Job Number:	S08_5458M
Multiplier:	15.2	Client:	RPS Consultants
Dilution:	1	Site:	Awe Burghfield
Acquisition Method:	5UL_RUNFNORACE.M	Client Sample Ref:	TP8F-009 0.85
Acquisition Date/Time:	05-Sep-08		
Datafile:	D:\TES\DATA\Y2008\0904TPH_GC7\039F4501.D		

Where individual results are flagged see report notes for for status.

Results corrected to dry weight at 105°C where appr opriate, in accordance with the MCERTS standard.

EFS/085458M Ver. 2

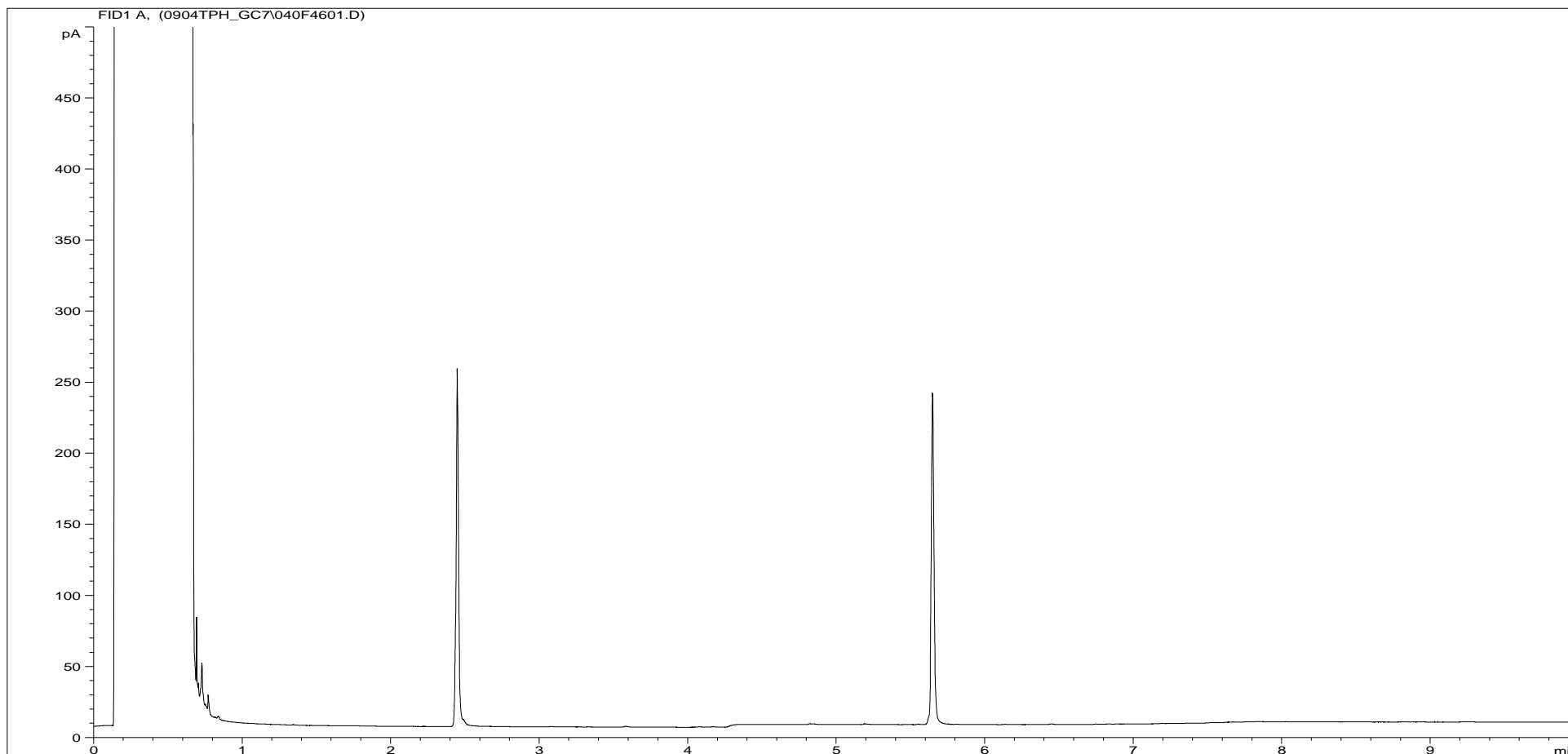
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



Sample ID:	CL0825209ARO	Job Number:	S08_5458M
Multiplier:	11.78	Client:	RPS Consultants
Dilution:	1	Site:	Awe Burghfield
Acquisition Method:	5UL_RUNFNORACE.M	Client Sample Ref:	TP8F-009 0.85
Acquisition Date/Time:	05-Sep-08		
Datafile:	D:\TES\DATA\Y2008\0904TPH_GC7\089B4501.D		

Where individual results are flagged see report notes for for status.

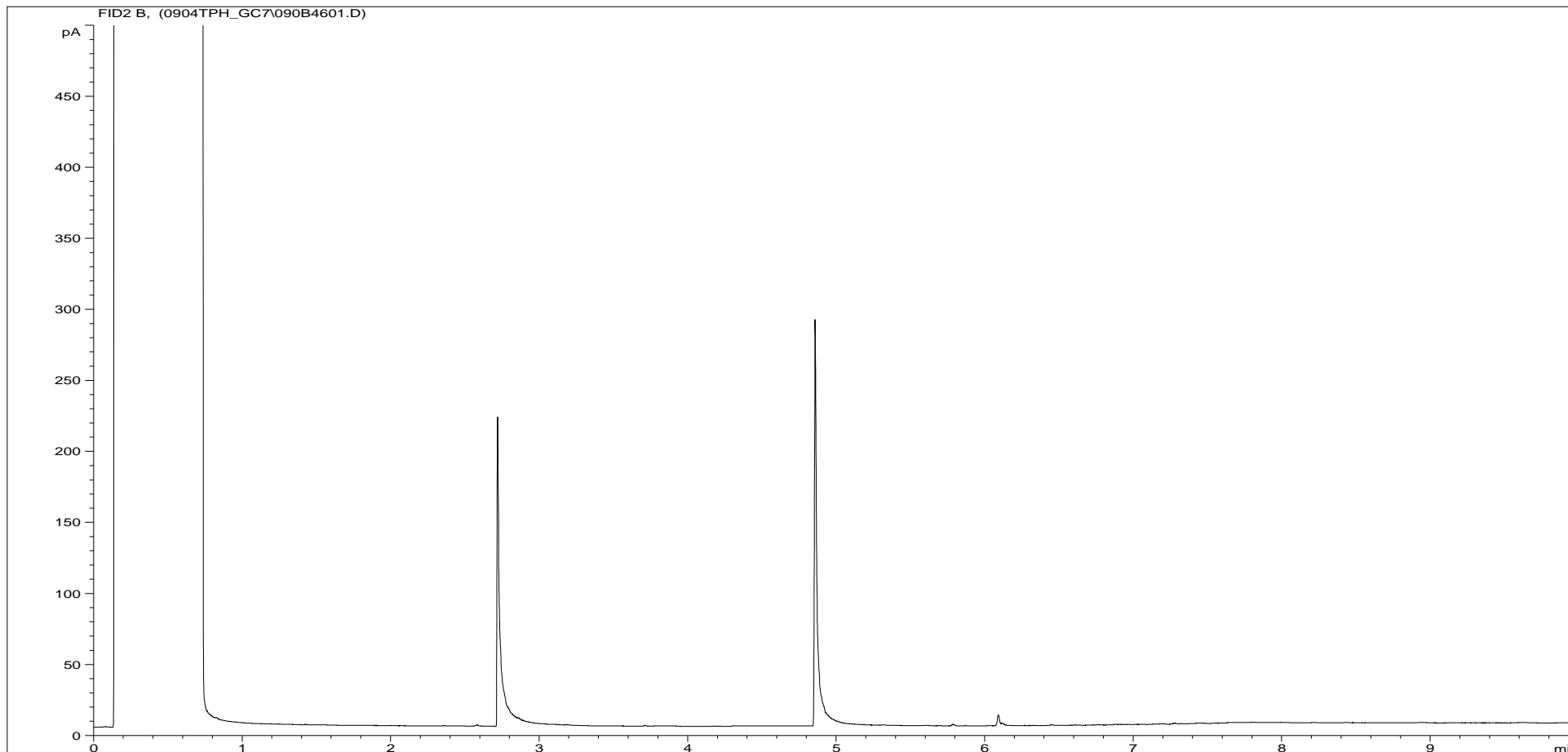
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



Sample ID:	CL0825210ALI	Job Number:	S08_5458M
Multiplier:	15.2	Client:	RPS Consultants
Dilution:	1	Site:	Awe Burghfield
Acquisition Method:	5UL_RUNFNORACE.M	Client Sample Ref:	TP8F-004 0.0-1.0
Acquisition Date/Time:	05-Sep-08		
Datafile:	D:\TES\DATA\Y2008\0904TPH_GC7\040F4601.D		

Where individual results are flagged see report notes for for status.

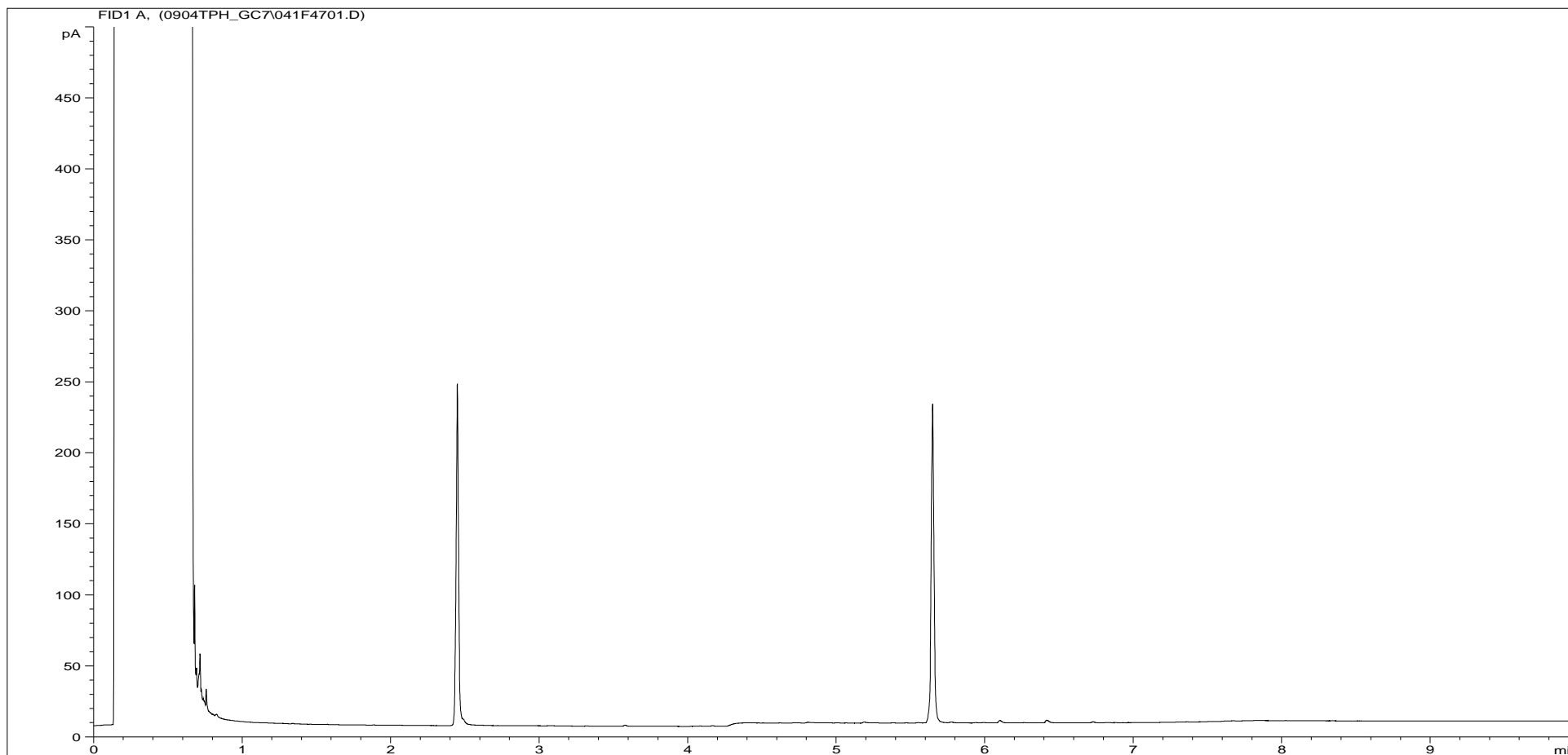
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



Sample ID:	CL0825210ARO	Job Number:	S08_5458M
Multiplier:	11.78	Client:	RPS Consultants
Dilution:	1	Site:	Awe Burghfield
Acquisition Method:	5UL_RUNFNORACE.M	Client Sample Ref:	TP8F-004 0.0-1.0
Acquisition Date/Time:	05-Sep-08		
Datafile:	D:\TES\DATA\Y2008\0904TPH_GC7\090B4601.D		

Where individual results are flagged see report notes for for status.

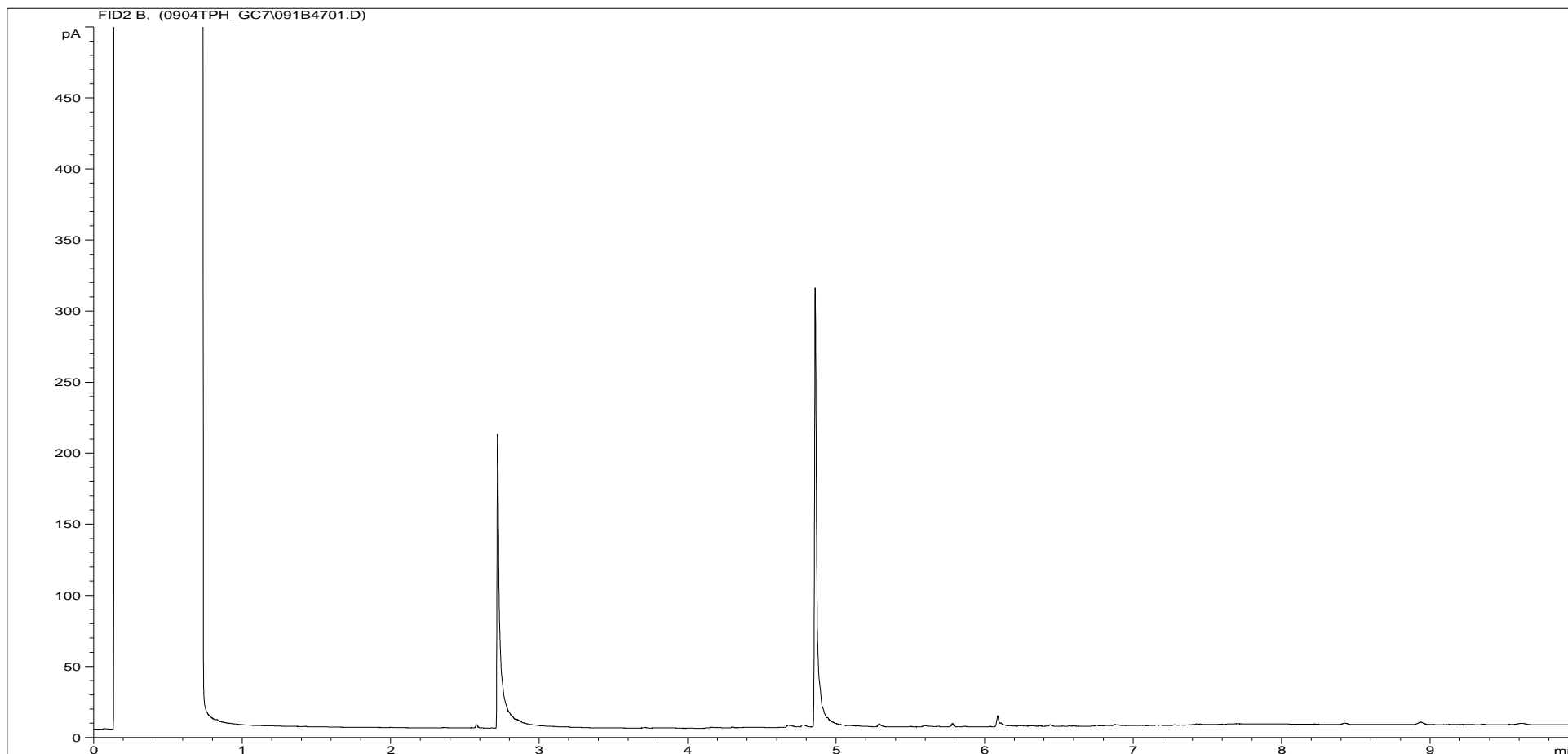
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



Sample ID:	CL0825211ALI	Job Number:	S08_5458M
Multiplier:	15.2	Client:	RPS Consultants
Dilution:	1	Site:	Awe Burghfield
Acquisition Method:	5UL_RUNFNORACE.M	Client Sample Ref:	TP8F-007 0.0-1.0
Acquisition Date/Time:	05-Sep-08		
Datafile:	D:\TES\DATA\Y2008\0904TPH_GC7\041F4701.D		

Where individual results are flagged see report notes for for status.

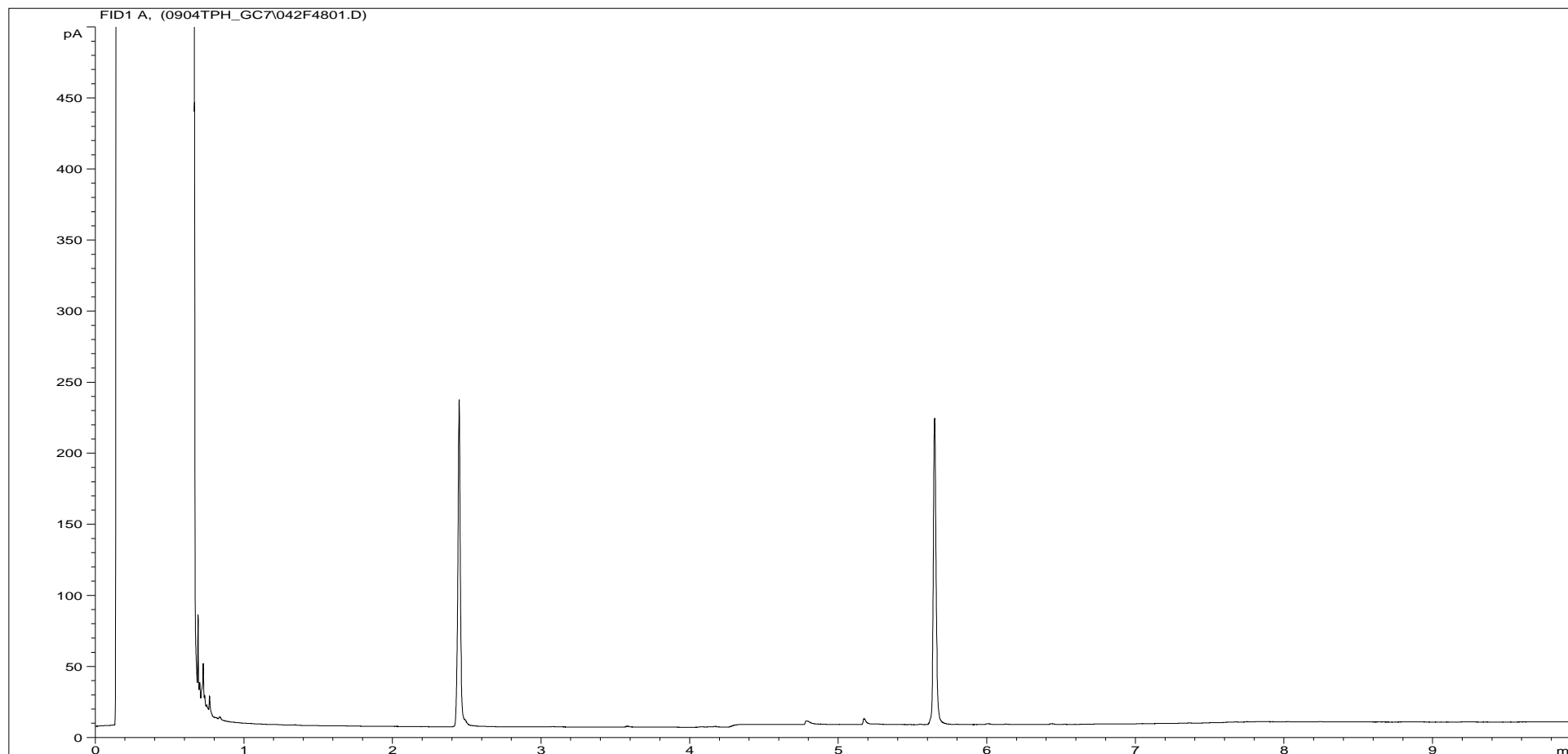
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



Sample ID:	CL0825211ARO	Job Number:	S08_5458M
Multiplier:	11.78	Client:	RPS Consultants
Dilution:	1	Site:	Awe Burghfield
Acquisition Method:	5UL_RUNFNORACE.M	Client Sample Ref:	TP8F-007 0.0-1.0
Acquisition Date/Time:	05-Sep-08		
Datafile:	D:\TES\DATA\Y2008\0904TPH_GC7\091B4701.D		

Where individual results are flagged see report notes for for status.

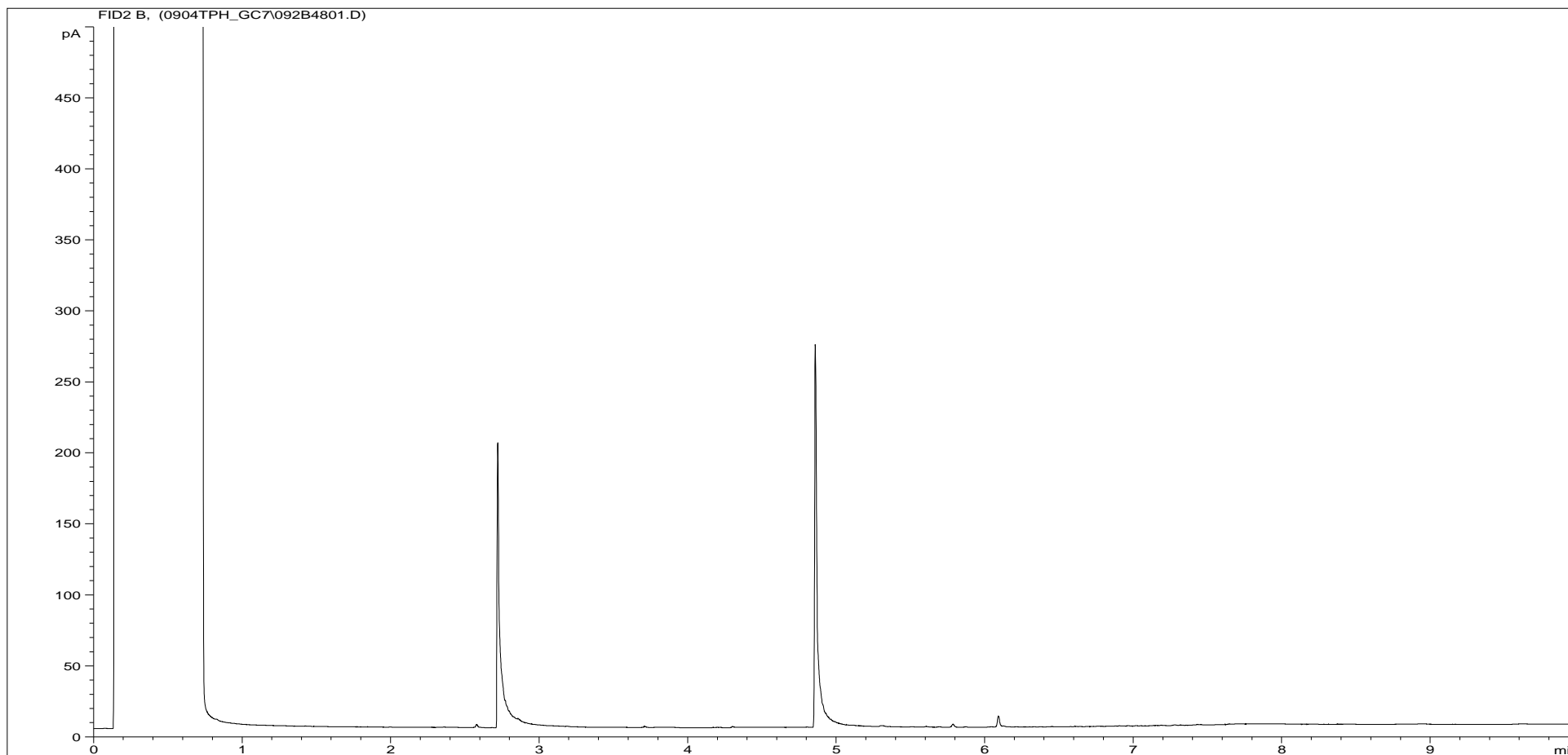
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



Sample ID:	CL0825212ALI	Job Number:	S08_5458M
Multiplier:	15.2	Client:	RPS Consultants
Dilution:	1	Site:	Awe Burghfield
Acquisition Method:	5UL_RUNFNORACE.M	Client Sample Ref:	TP8F-011 0.0-0.9
Acquisition Date/Time:	05-Sep-08		
Datafile:	D:\TES\DATA\Y2008\0904TPH_GC7\042F4801.D		

Where individual results are flagged see report notes for for status.

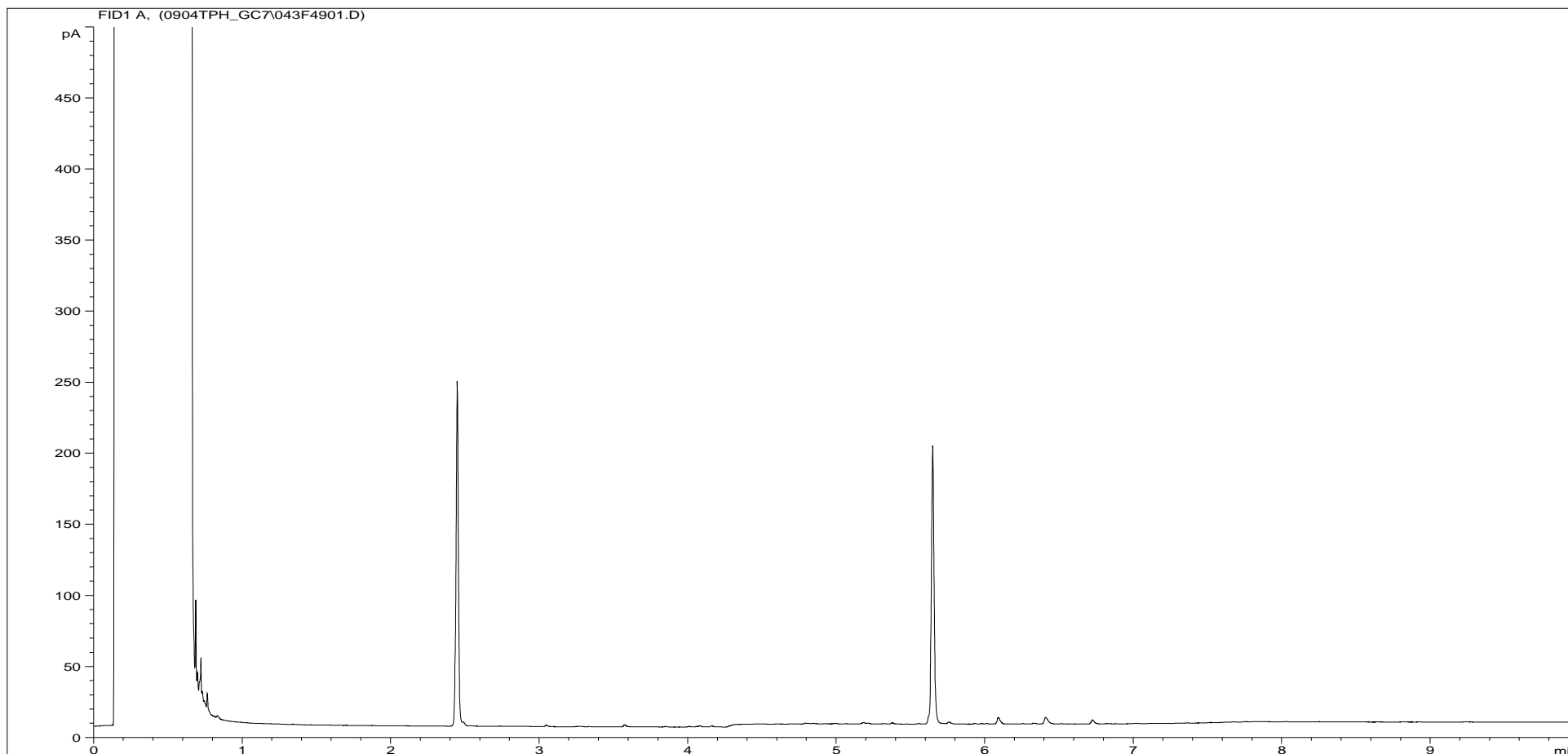
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



Sample ID:	CL0825212ARO	Job Number:	S08_5458M
Multiplier:	11.4	Client:	RPS Consultants
Dilution:	1	Site:	Awe Burghfield
Acquisition Method:	5UL_RUNFNORACE.M	Client Sample Ref:	TP8F-011 0.0-0.9
Acquisition Date/Time:	05-Sep-08		
Datafile:	D:\TES\DATA\Y2008\0904TPH_GC7\092B4801.D		

Where individual results are flagged see report notes for for status.

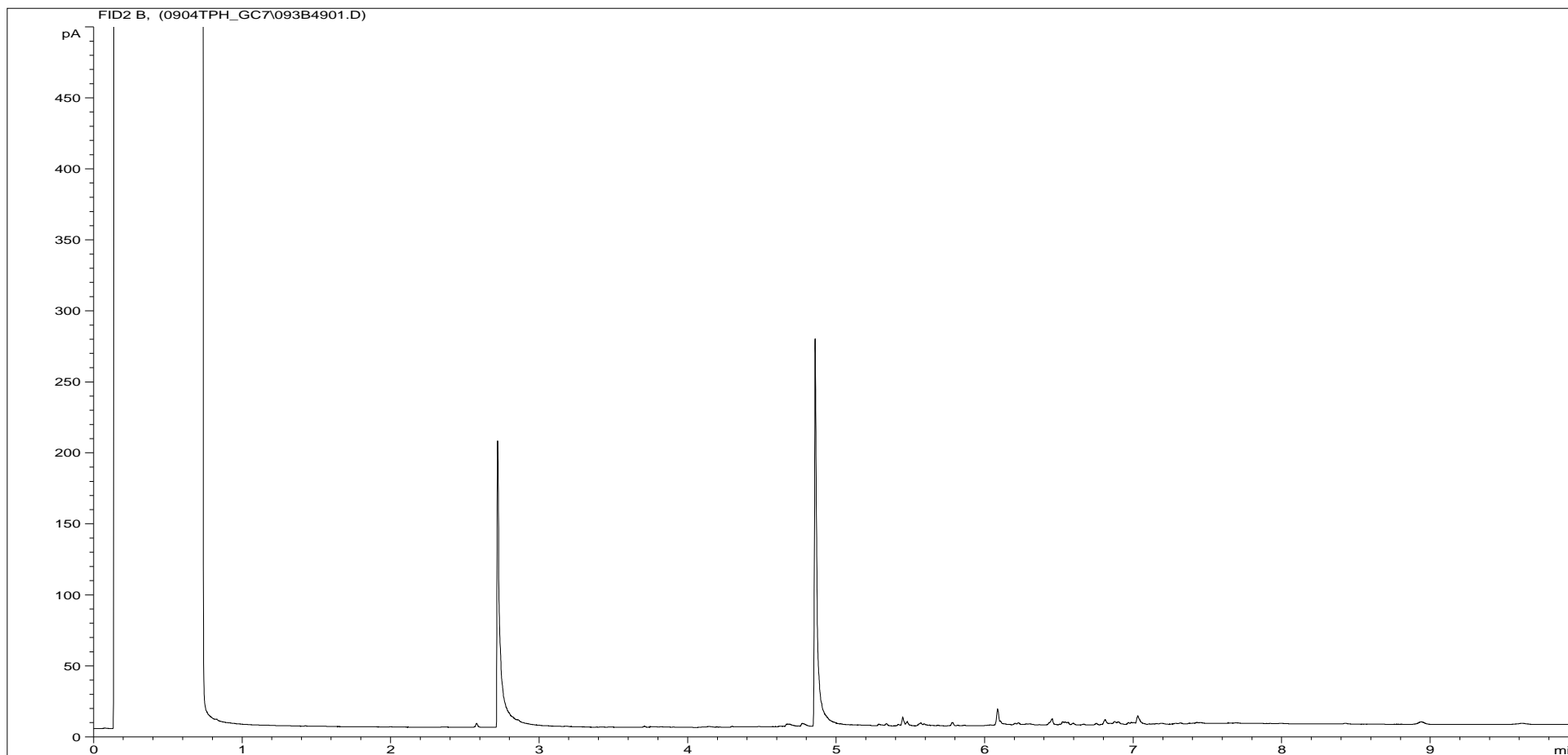
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



Sample ID:	CL0825213ALI	Job Number:	S08_5458M
Multiplier:	15.2	Client:	RPS Consultants
Dilution:	1	Site:	Awe Burghfield
Acquisition Method:	5UL_RUNFNORACE.M	Client Sample Ref:	TP8F-012 0.0-0.7
Acquisition Date/Time:	05-Sep-08		
Datafile:	D:\TES\DATA\Y2008\0904TPH_GC7\043F4901.D		

Where individual results are flagged see report notes for for status.

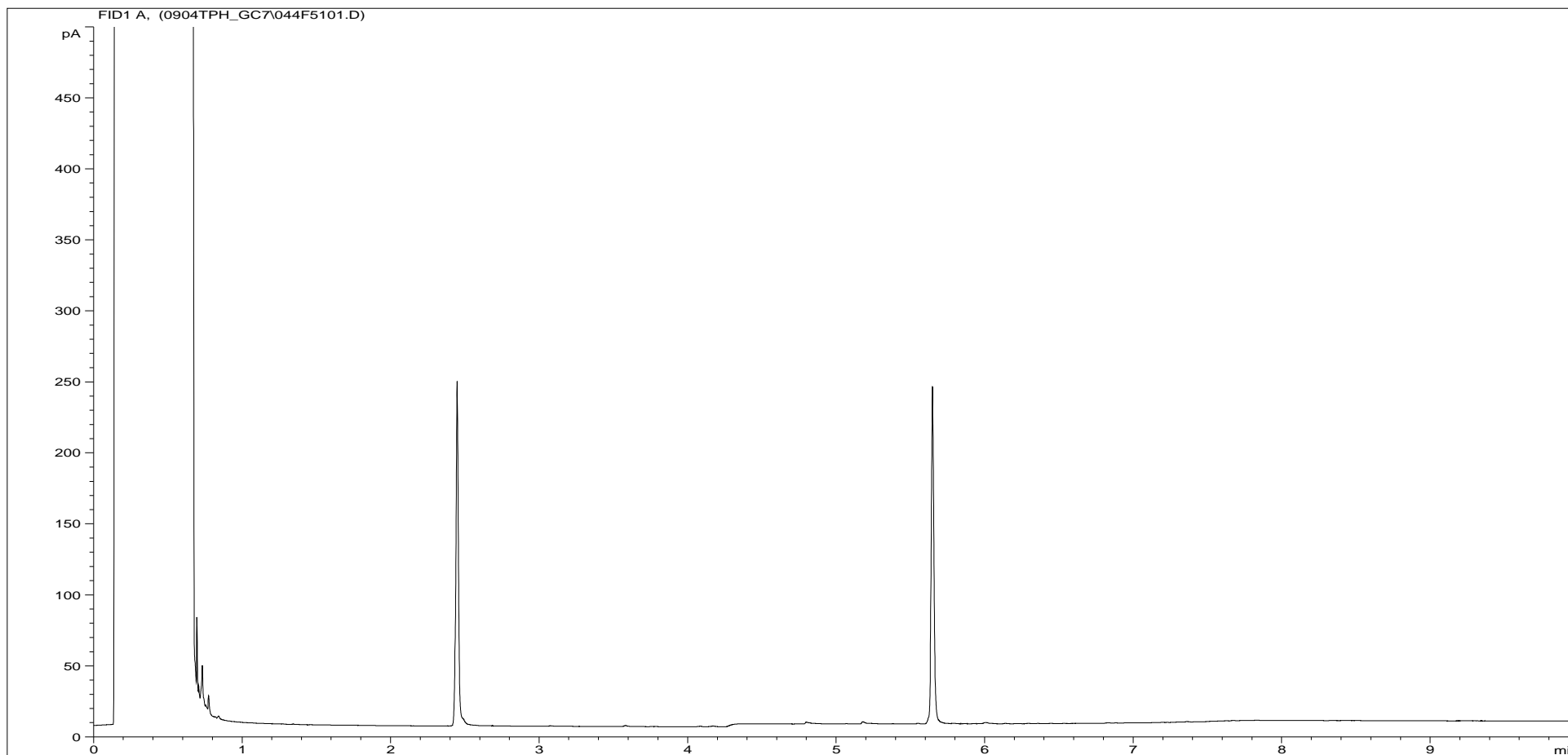
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



Sample ID:	CL0825213ARO	Job Number:	S08_5458M
Multiplier:	11.4	Client:	RPS Consultants
Dilution:	1	Site:	Awe Burghfield
Acquisition Method:	5UL_RUNFNORACE.M	Client Sample Ref:	TP8F-012 0.0-0.7
Acquisition Date/Time:	05-Sep-08		
Datafile:	D:\TES\DATA\Y2008\0904TPH_GC7\093B4901.D		

Where individual results are flagged see report notes for for status.

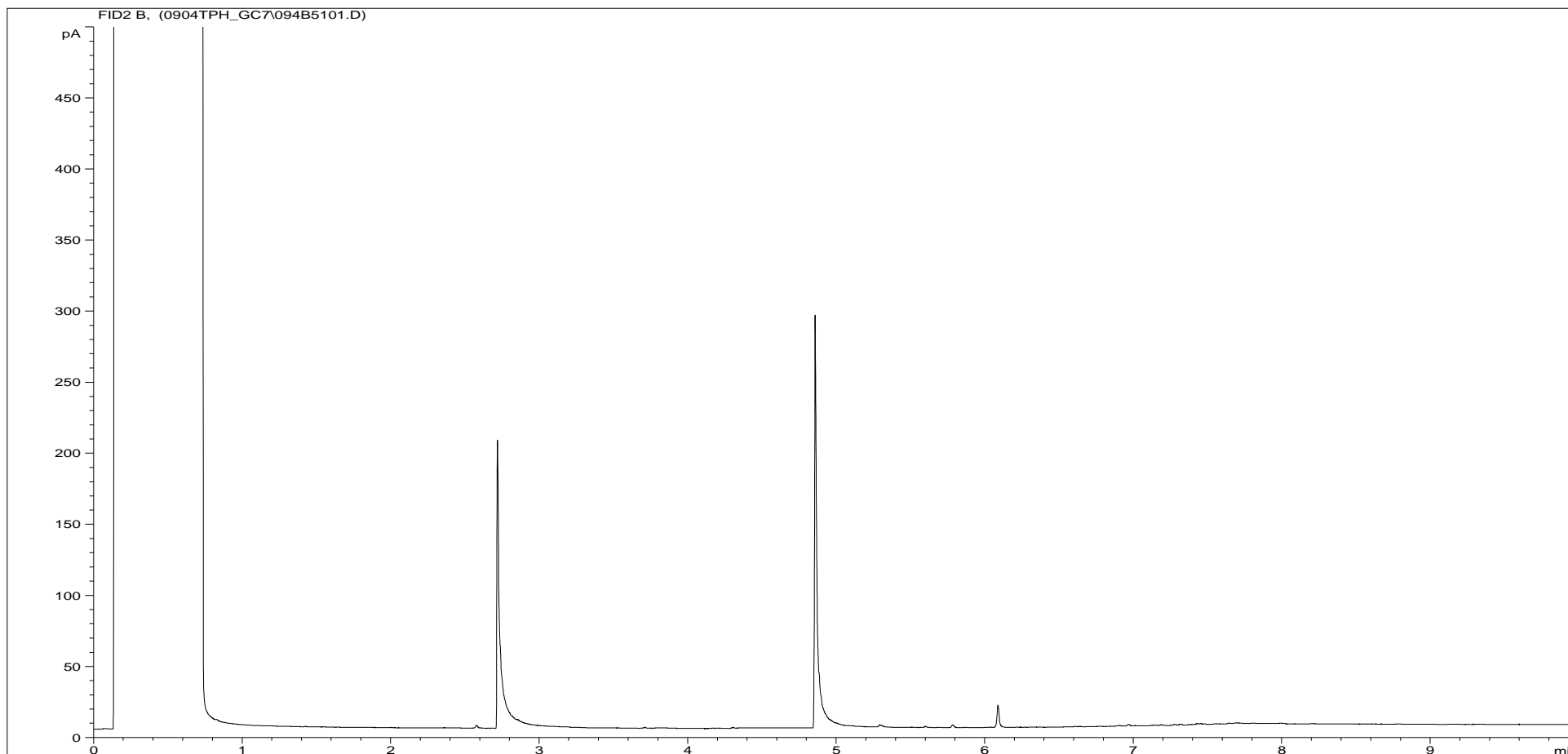
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



Sample ID:	CL0825214ALI	Job Number:	S08_5458M
Multiplier:	15.2	Client:	RPS Consultants
Dilution:	1	Site:	Awe Burghfield
Acquisition Method:	5UL_RUNFNORACE.M	Client Sample Ref:	TP8F-012 1.2
Acquisition Date/Time:	05-Sep-08		
Datafile:	D:\TES\DATA\Y2008\0904TPH_GC7\044F5101.D		

Where individual results are flagged see report notes for for status.

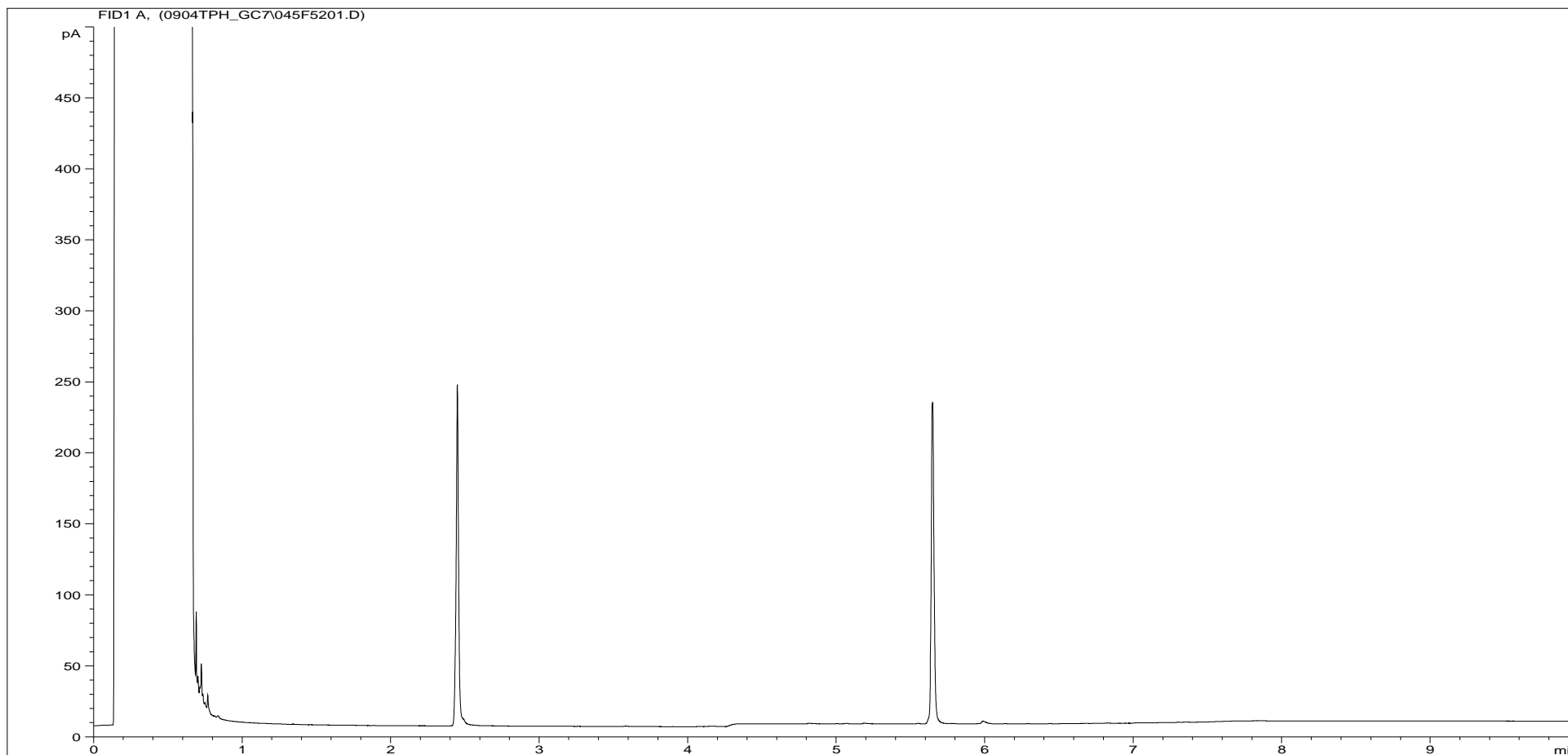
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



Sample ID:	CL0825214ARO	Job Number:	S08_5458M
Multiplier:	11.4	Client:	RPS Consultants
Dilution:	1	Site:	Awe Burghfield
Acquisition Method:	5UL_RUNFNORACE.M	Client Sample Ref:	TP8F-012 1.2
Acquisition Date/Time:	05-Sep-08		
Datafile:	D:\TES\DATA\Y2008\0904TPH_GC7\094B5101.D		

Where individual results are flagged see report notes for for status.

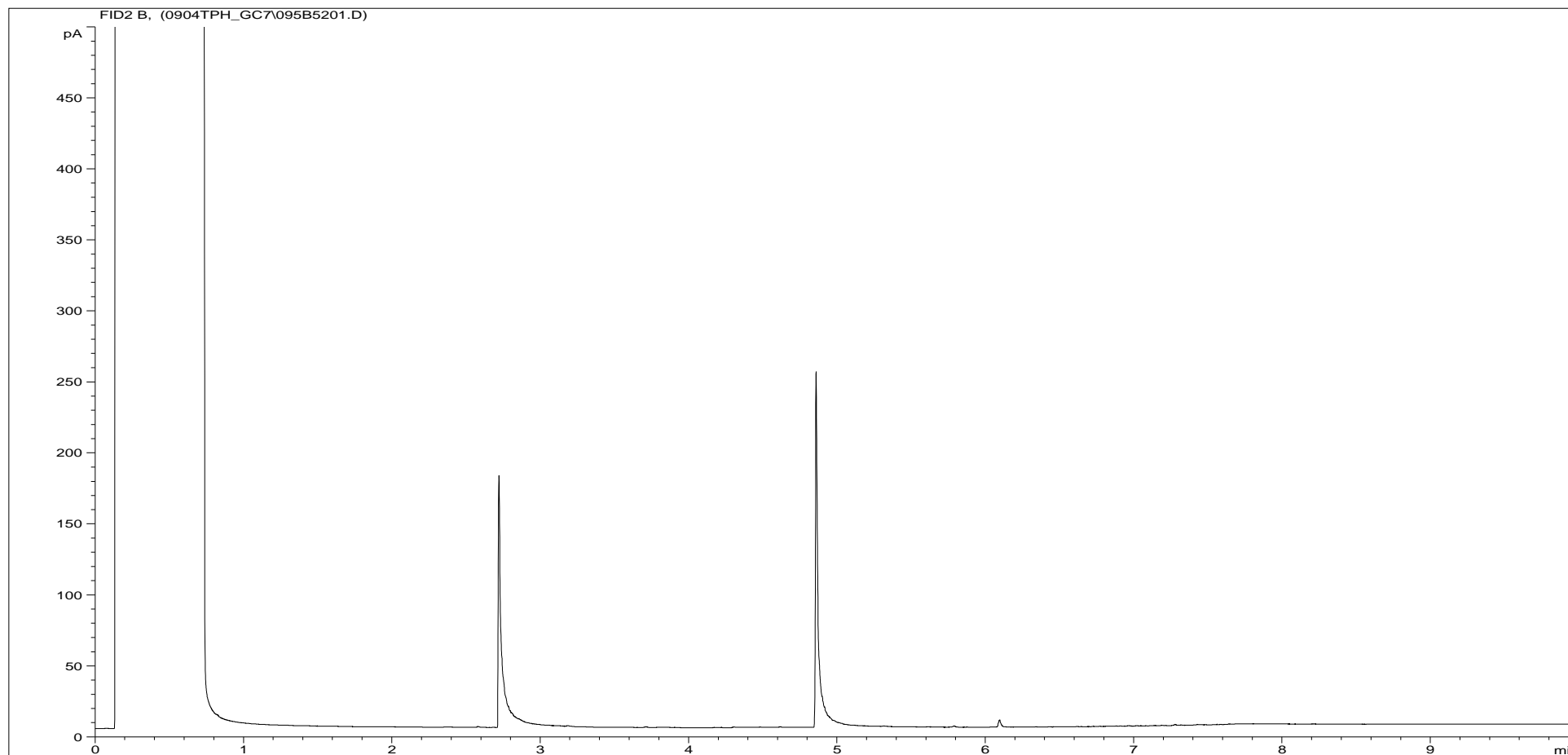
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



Sample ID:	CL0825215ALI	Job Number:	S08_5458M
Multiplier:	15.2	Client:	RPS Consultants
Dilution:	1	Site:	Awe Burghfield
Acquisition Method:	5UL_RUNFNORACE.M	Client Sample Ref:	TP8S-004 0.9
Acquisition Date/Time:	05-Sep-08		
Datafile:	D:\TES\DATA\Y2008\0904TPH_GC7\045F5201.D		

Where individual results are flagged see report notes for for status.

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.

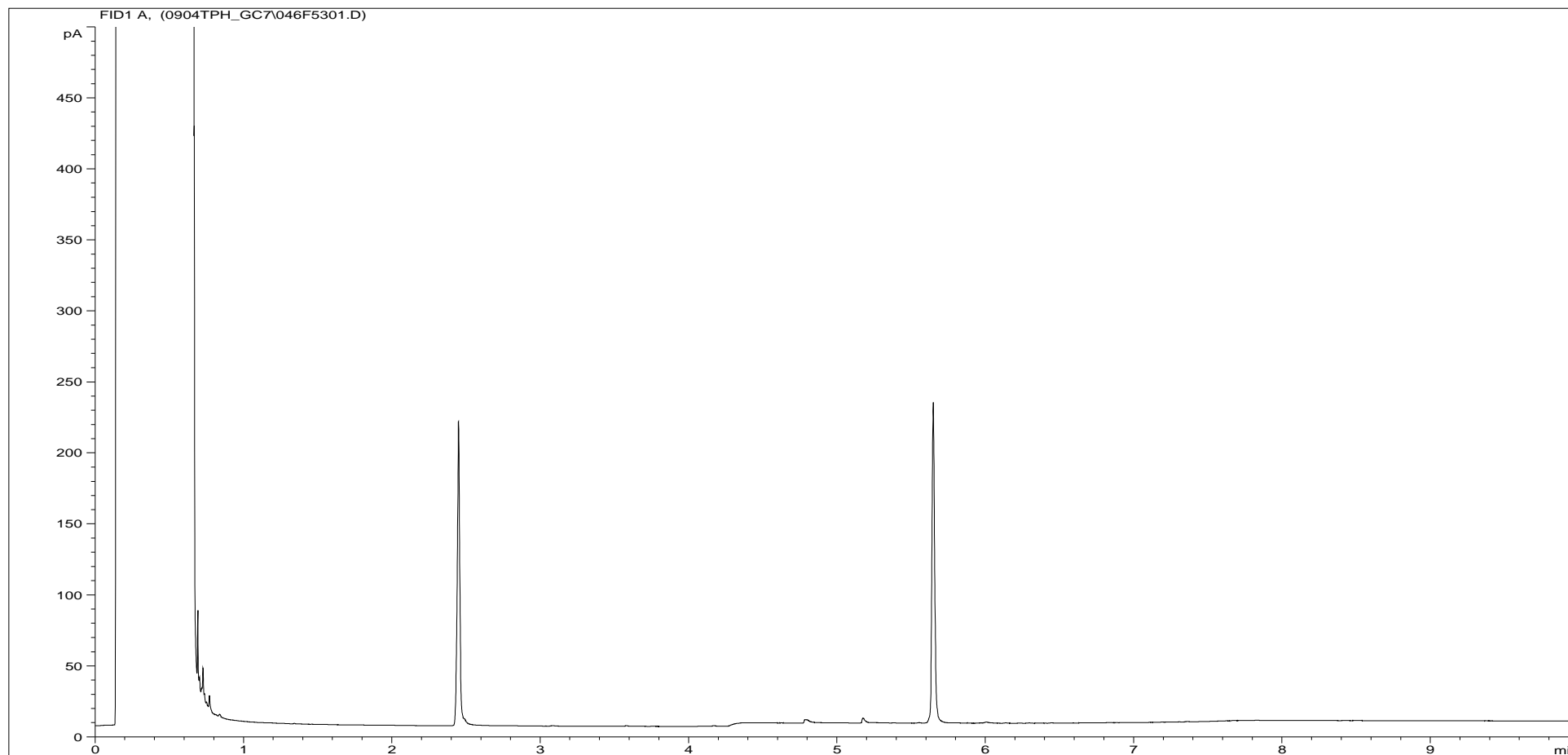


Sample ID:	CL0825215ARO	Job Number:	S08_5458M
Multiplier:	11.4	Client:	RPS Consultants
Dilution:	1	Site:	Awe Burghfield
Acquisition Method:	5UL_RUNFNORACE.M	Client Sample Ref:	TP8S-004 0.9
Acquisition Date/Time:	05-Sep-08		
Datafile:	D:\TES\DATA\Y2008\0904TPH_GC7\095B5201.D		

Where individual results are flagged see report notes for for status.

Results corrected to dry weight at 105°C where appr opriate, in accordance with the MCERTS standard.

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



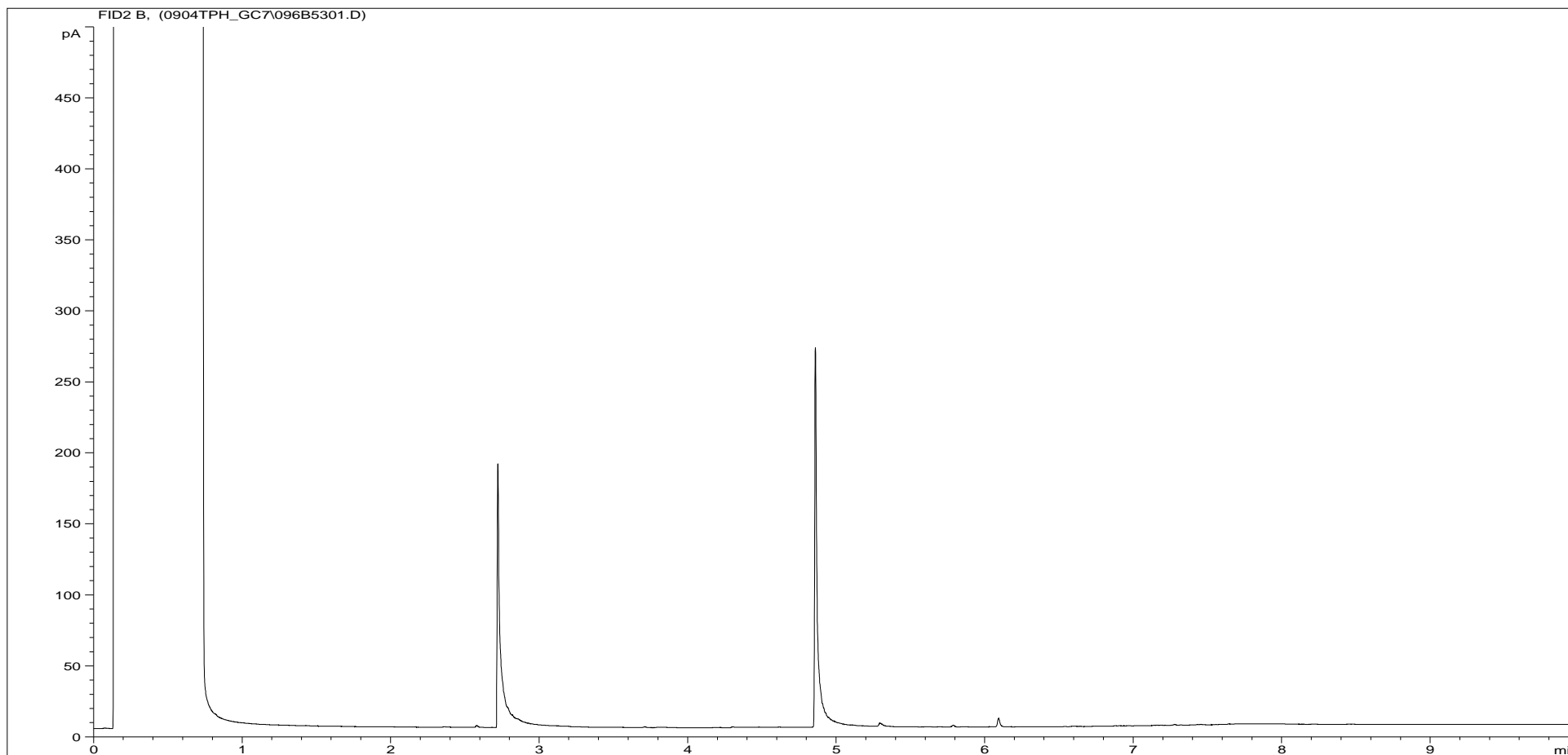
Sample ID:	CL0825216ALI	Job Number:	S08_5458M
Multiplier:	15.2	Client:	RPS Consultants
Dilution:	1	Site:	Awe Burghfield
Acquisition Method:	5UL_RUNFNORACE.M	Client Sample Ref:	TP8F-014 0.85
Acquisition Date/Time:	05-Sep-08		
Datafile:	D:\TES\DATA\Y2008\0904TPH_GC7\046F5301.D		

Where individual results are flagged see report notes for for status.

Results corrected to dry weight at 105°C where appropriate, in accordance with the MCERTS standard.

EFS/085458M Ver. 2

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



Sample ID:	CL0825216ARO	Job Number:	S08_5458M
Multiplier:	11.4	Client:	RPS Consultants
Dilution:	1	Site:	Awe Burghfield
Acquisition Method:	5UL_RUNFNORACE.M	Client Sample Ref:	TP8F-014 0.85
Acquisition Date/Time:	05-Sep-08		
Datafile:	D:\TES\DATA\Y2008\0904TPH_GC7\096B5301.D		

Where individual results are flagged see report notes for for status.

Volatile Organic Compounds by PTGCMS

Customer and Site Details: RPS Consultants: Awe Burghfield
Sample Details: TP8F-009 0.85
LIMS ID Number: CL0825209
Job Number: S08_5458M

Accredited?: Yes

Directory/Quant file: 0909VOC.MS7 Initial Calibration
Date Booked in: 27-Aug-08
Date Analysed: 09-Sep-08
Operator: MK/PW

Matrix: Soil
Method: Purge & trap
Multiplier: 5
Position: 19

Target Compounds	CAS #	R.T. (min.)	Concentration µg/kg	% Fit	Accr. code
Dichlorodifluoromethane	75-71-8	-	< 6	-	UM
Chloromethane	74-87-3	-	< 6	-	UM
Vinyl Chloride	75-01-4 *	-	< 6	-	N
Bromomethane	74-83-9 *	-	< 32	-	N
Chloroethane	75-00-3	-	< 32	-	UM
Trichlorofluoromethane	75-69-4	-	< 6	-	UM
1,1-Dichloroethene	75-35-4	-	< 6	-	UM
trans 1,2-Dichloroethene	156-60-5	-	< 6	-	U
1,1-Dichloroethane	75-34-3	-	< 6	-	UM
2,2-Dichloropropane	594-20-7	-	< 6	-	UM
cis 1,2-Dichloroethene	156-59-2	-	< 6	-	UM
Bromochloromethane	74-97-5	-	< 6	-	UM
Chloroform	67-66-3	-	< 6	-	UM
1,1,1-Trichloroethane	71-55-6	-	< 6	-	UM
Carbon Tetrachloride	56-23-5	-	< 6	-	UM
1,1-Dichloropropene	563-58-6	-	< 6	-	UM
Benzene	71-43-2	-	< 6	-	N
1,2-Dichloroethane	107-06-2	-	< 6	-	UM
Trichloroethene	79-01-6	-	< 6	-	UM
1,2-Dichloropropane	78-87-5	-	< 6	-	UM
Dibromomethane	74-95-3	-	< 6	-	UM
Bromodichloromethane	75-27-4	-	< 6	-	UM
cis 1,3-Dichloropropene	10061-01-5 *	-	< 6	-	N
Toluene	108-88-3	-	< 6	-	N
trans 1,3-Dichloropropene	10061-02-6 *	-	< 6	-	N
1,1,2-Trichloroethane	79-00-5	-	< 6	-	UM
Tetrachloroethene	127-18-4	-	< 32	-	UM
1,3-Dichloropropane	142-28-9	-	< 6	-	UM
Dibromochloromethane	124-48-1	-	< 6	-	UM
1,2-Dibromoethane	106-93-4	-	< 6	-	U
Chlorobenzene	108-90-7	-	< 6	-	UM
Ethylbenzene	100-41-4	-	< 6	-	UM
1,1,1,2-Tetrachloroethane	630-20-6	-	< 6	-	UM
m and p-Xylene	108-38-3/106-42-3	-	< 6	-	UM
o-Xylene	95-47-6	-	< 6	-	UM

Target Compounds	CAS #	R.T. (min.)	Concentration µg/kg	% Fit	Accr. code
Styrene	100-42-5	-	< 6	-	UM
Bromoform	75-25-2	-	< 6	-	UM
iso-Propylbenzene	98-82-8	-	< 6	-	UM
1,1,2,2-Tetrachloroethane	79-34-5	-	< 6	-	U
Propylbenzene	103-65-1	-	< 6	-	U
Bromobenzene	108-86-1	-	< 6	-	UM
1,2,3-Trichloropropane	96-18-4	-	< 6	-	U
2-Chlorotoluene	95-49-8	-	< 6	-	UM
1,3,5-Trimethylbenzene	108-67-8	-	< 6	-	UM
4-Chlorotoluene	106-43-4	-	< 6	-	UM
tert-Butylbenzene	98-06-6	-	< 6	-	U
1,2,4-Trimethylbenzene	95-63-6	-	< 6	-	UM
sec-Butylbenzene	135-98-8	-	< 6	-	UM
p-Isopropyltoluene	99-87-6	-	< 6	-	U
1,3-Dichlorobenzene	541-73-1	-	< 6	-	UM
1,4-Dichlorobenzene	106-46-7	-	< 6	-	UM
n-Butylbenzene	104-51-8	-	< 6	-	U
1,2-Dichlorobenzene	95-50-1	-	< 6	-	UM
1,2-Dibromo-3-chloropropane	96-12-8 *	-	< 32	-	N
1,2,4-Trichlorobenzene	120-82-1	-	< 32	-	U
Hexachlorobutadiene	87-68-3 *	-	< 32	-	N
Naphthalene	91-20-3 *	-	< 32	-	N
1,2,3-Trichlorobenzene	87-61-6	-	< 32	-	UM

Concentrations are reported on a dry weight basis

"M" denotes that % fit has been manually interpreted

Internal standards	R.T.	Area %	Surrogates	% Rec
Pentafluorobenzene	2.79	90	Dibromofluoromethane	101
1,4-Difluorobenzene	3.07	102	Toluene-d8	90
Chlorobenzene-d5	4.08	84	Bromofluorobenzene	89
1,4-Dichlorobenzene-d4	4.85	82		

This analysis was conducted on an 'As Received' basis.

Volatile Organic Compounds by PTGCMS

Customer and Site Details: RPS Consultants: Awe Burghfield
Sample Details: TP8F-012 0.0-0.7
LIMS ID Number: CL0825213
Job Number: S08_5458M

Accredited?: Yes

Directory/Quant file: 0909VOC.MS7 Initial Calibration
Date Booked in: 27-Aug-08
Date Analysed: 09-Sep-08
Operator: MK/PW

Matrix: Soil
Method: Purge & trap
Multiplier: 5
Position: 20

Target Compounds	CAS #	R.T. (min.)	Concentration µg/kg	% Fit	Accr. code
Dichlorodifluoromethane	75-71-8	-	< 8	-	UM
Chloromethane	74-87-3	-	< 8	-	UM
Vinyl Chloride	75-01-4 *	-	< 8	-	N
Bromomethane	74-83-9 *	-	< 39	-	N
Chloroethane	75-00-3	-	< 39	-	UM
Trichlorofluoromethane	75-69-4	-	< 8	-	UM
1,1-Dichloroethene	75-35-4	-	< 8	-	UM
trans 1,2-Dichloroethene	156-60-5	-	< 8	-	U
1,1-Dichloroethane	75-34-3	-	< 8	-	UM
2,2-Dichloropropane	594-20-7	-	< 8	-	UM
cis 1,2-Dichloroethene	156-59-2	-	< 8	-	UM
Bromochloromethane	74-97-5	-	< 8	-	UM
Chloroform	67-66-3	-	< 8	-	UM
1,1,1-Trichloroethane	71-55-6	-	< 8	-	UM
Carbon Tetrachloride	56-23-5	-	< 8	-	UM
1,1-Dichloropropene	563-58-6	-	< 8	-	UM
Benzene	71-43-2	-	< 8	-	N
1,2-Dichloroethane	107-06-2	-	< 8	-	UM
Trichloroethene	79-01-6	-	< 8	-	UM
1,2-Dichloropropane	78-87-5	-	< 8	-	UM
Dibromomethane	74-95-3	-	< 8	-	UM
Bromodichloromethane	75-27-4	-	< 8	-	UM
cis 1,3-Dichloropropene	10061-01-5 *	-	< 8	-	N
Toluene	108-88-3	-	< 8	-	N
trans 1,3-Dichloropropene	10061-02-6 *	-	< 8	-	N
1,1,2-Trichloroethane	79-00-5	-	< 8	-	UM
Tetrachloroethene	127-18-4	-	< 39	-	UM
1,3-Dichloropropane	142-28-9	-	< 8	-	UM
Dibromochloromethane	124-48-1	-	< 8	-	UM
1,2-Dibromoethane	106-93-4	-	< 8	-	U
Chlorobenzene	108-90-7	-	< 8	-	UM
Ethylbenzene	100-41-4	-	< 8	-	UM
1,1,1,2-Tetrachloroethane	630-20-6	-	< 8	-	UM
m and p-Xylene	108-38-3/106-42-3	4.16	8	76	UM
o-Xylene	95-47-6	-	< 8	-	UM

Target Compounds	CAS #	R.T. (min.)	Concentration µg/kg	% Fit	Accr. code
Styrene	100-42-5	-	< 8	-	UM
Bromoform	75-25-2	-	< 8	-	UM
iso-Propylbenzene	98-82-8	-	< 8	-	UM
1,1,2,2-Tetrachloroethane	79-34-5	-	< 8	-	U
Propylbenzene	103-65-1	-	< 8	-	U
Bromobenzene	108-86-1	-	< 8	-	UM
1,2,3-Trichloropropane	96-18-4	-	< 8	-	U
2-Chlorotoluene	95-49-8	-	< 8	-	UM
1,3,5-Trimethylbenzene	108-67-8	-	< 8	-	UM
4-Chlorotoluene	106-43-4	-	< 8	-	UM
tert-Butylbenzene	98-06-6	-	< 8	-	U
1,2,4-Trimethylbenzene	95-63-6	-	< 8	-	UM
sec-Butylbenzene	135-98-8	-	< 8	-	UM
p-Isopropyltoluene	99-87-6	-	< 8	-	U
1,3-Dichlorobenzene	541-73-1	-	< 8	-	UM
1,4-Dichlorobenzene	106-46-7	-	< 8	-	UM
n-Butylbenzene	104-51-8	-	< 8	-	U
1,2-Dichlorobenzene	95-50-1	-	< 8	-	UM
1,2-Dibromo-3-chloropropane	96-12-8 *	-	< 39	-	N
1,2,4-Trichlorobenzene	120-82-1	-	< 39	-	U
Hexachlorobutadiene	87-68-3 *	-	< 39	-	N
Naphthalene	91-20-3 *	-	< 39	-	N
1,2,3-Trichlorobenzene	87-61-6	-	< 39	-	UM

Concentrations are reported on a dry weight basis

"M" denotes that % fit has been manually interpreted

Internal standards	R.T.	Area %	Surrogates	% Rec
Pentafluorobenzene	2.79	90	Dibromofluoromethane	102
1,4-Difluorobenzene	3.07	99	Toluene-d8	83
Chlorobenzene-d5	4.08	71	Bromofluorobenzene	82
1,4-Dichlorobenzene-d4	4.85	54		

This analysis was conducted on an 'As Received' basis.

Volatile Organic Compounds by PTGCMS

Customer and Site Details: RPS Consultants: Awe Burghfield
Sample Details: TP8F-012 1.2
LIMS ID Number: CL0825214
Job Number: S08_5458M

Accredited?: Yes

Directory/Quant file: 0909VOC.MS7 Initial Calibration
Date Booked in: 27-Aug-08
Date Analysed: 09-Sep-08
Operator: MK/PW

Matrix: Soil
Method: Purge & trap
Multiplier: 5
Position: 23

Target Compounds	CAS #	R.T. (min.)	Concentration µg/kg	% Fit	Accr. code
Dichlorodifluoromethane	75-71-8	-	< 7	-	UM
Chloromethane	74-87-3	-	< 7	-	UM
Vinyl Chloride	75-01-4 *	-	< 7	-	N
Bromomethane	74-83-9 *	-	< 33	-	N
Chloroethane	75-00-3	-	< 33	-	UM
Trichlorofluoromethane	75-69-4	-	< 7	-	UM
1,1-Dichloroethene	75-35-4	-	< 7	-	UM
trans 1,2-Dichloroethene	156-60-5	-	< 7	-	U
1,1-Dichloroethane	75-34-3	-	< 7	-	UM
2,2-Dichloropropane	594-20-7	-	< 7	-	UM
cis 1,2-Dichloroethene	156-59-2	-	< 7	-	UM
Bromochloromethane	74-97-5	-	< 7	-	UM
Chloroform	67-66-3	-	< 7	-	UM
1,1,1-Trichloroethane	71-55-6	-	< 7	-	UM
Carbon Tetrachloride	56-23-5	-	< 7	-	UM
1,1-Dichloropropene	563-58-6	-	< 7	-	UM
Benzene	71-43-2	-	< 7	-	N
1,2-Dichloroethane	107-06-2	-	< 7	-	UM
Trichloroethene	79-01-6	-	< 7	-	UM
1,2-Dichloropropane	78-87-5	-	< 7	-	UM
Dibromomethane	74-95-3	-	< 7	-	UM
Bromodichloromethane	75-27-4	-	< 7	-	UM
cis 1,3-Dichloropropene	10061-01-5 *	-	< 7	-	N
Toluene	108-88-3	-	< 7	-	N
trans 1,3-Dichloropropene	10061-02-6 *	-	< 7	-	N
1,1,2-Trichloroethane	79-00-5	-	< 7	-	UM
Tetrachloroethene	127-18-4	-	< 33	-	UM
1,3-Dichloropropane	142-28-9	-	< 7	-	UM
Dibromochloromethane	124-48-1	-	< 7	-	UM
1,2-Dibromoethane	106-93-4	-	< 7	-	U
Chlorobenzene	108-90-7	-	< 7	-	UM
Ethylbenzene	100-41-4	-	< 7	-	UM
1,1,1,2-Tetrachloroethane	630-20-6	-	< 7	-	UM
m and p-Xylene	108-38-3/106-42-3	4.16	9	72	UM
o-Xylene	95-47-6	-	< 7	-	UM

Target Compounds	CAS #	R.T. (min.)	Concentration µg/kg	% Fit	Accr. code
Styrene	100-42-5	-	< 7	-	UM
Bromoform	75-25-2	-	< 7	-	UM
iso-Propylbenzene	98-82-8	-	< 7	-	UM
1,1,2,2-Tetrachloroethane	79-34-5	-	< 7	-	U
Propylbenzene	103-65-1	-	< 7	-	U
Bromobenzene	108-86-1	-	< 7	-	UM
1,2,3-Trichloropropane	96-18-4	-	< 7	-	U
2-Chlorotoluene	95-49-8	-	< 7	-	UM
1,3,5-Trimethylbenzene	108-67-8	-	< 7	-	UM
4-Chlorotoluene	106-43-4	-	< 7	-	UM
tert-Butylbenzene	98-06-6	-	< 7	-	U
1,2,4-Trimethylbenzene	95-63-6	4.73	22	M	UM
sec-Butylbenzene	135-98-8	-	< 7	-	UM
p-Isopropyltoluene	99-87-6	4.83	8	62	U
1,3-Dichlorobenzene	541-73-1	-	< 7	-	UM
1,4-Dichlorobenzene	106-46-7	-	< 7	-	UM
n-Butylbenzene	104-51-8	-	< 7	-	U
1,2-Dichlorobenzene	95-50-1	-	< 7	-	UM
1,2-Dibromo-3-chloropropane	96-12-8 *	-	< 33	-	N
1,2,4-Trichlorobenzene	120-82-1	-	< 33	-	U
Hexachlorobutadiene	87-68-3 *	-	< 33	-	N
Naphthalene	91-20-3 *	-	< 33	-	N
1,2,3-Trichlorobenzene	87-61-6	-	< 33	-	UM

Concentrations are reported on a dry weight basis

"M" denotes that % fit has been manually interpreted

Internal standards	R.T.	Area %	Surrogates	% Rec
Pentafluorobenzene	2.79	86	Dibromofluoromethane	114
1,4-Difluorobenzene	3.07	98	Toluene-d8	85
Chlorobenzene-d5	4.08	72	Bromofluorobenzene	86
1,4-Dichlorobenzene-d4	4.85	61		

This analysis was conducted on an 'As Received' basis.

Report Notes

Soil/Solid analysis specific:

S04 analysis not conducted in accordance with BS1377 unless otherwise stated
Water Soluble Sulphate on 2:1 water:soil extract
AR denotes analysis conducted on the As Received sample

Water analysis specific:

Results expressed as mg/l unless stated otherwise

Oil analysis specific:

Results expressed as mg/kg unless stated otherwise
S.G. expressed as g/cm³ @ 15°C

Filter analysis specific:

Results expressed as mg on filter unless stated otherwise

VOC analysis specific:

Explanatory notes for data flagging
U = undetected above reporting limit
J = concentration at instrument was below lowest calibration standard
E = concentration at instrument was above top calibration standard
B = compound was detected in method blank

Gas (Tedlar bag) analysis specific:

Results expressed as ug/l unless stated otherwise

Air (Carbon tube) analysis specific:

Results expressed as ug on tube unless stated otherwise

Asbestos analysis specific:

CH denotes Chrysotile
CR denotes Crocidolite
AM denotes Amosite
NADIS denotes No Asbestos Detected in Sample
NBFO denotes No Bulk fibres Observed

General notes:

^ this analysis was subcontracted to another laboratory
\$ Within laboratory tolerances
\$\$ unable to analyse due to nature of sample
¥ Results for guidance only, possible interference
& Blank corrected
I.S insufficient sample for analysis
Intf Unable to analyse due to interferences
N.D Not determined
N.R Not recorded
N.Det Not detected
Req Analysis Requested, see attached sheets for results
p Raised detection limit due to nature of sample
***** denotes that all accreditation has been removed by the laboratory for this result.
‡ denotes that Mcerts accreditation has been removed by the laboratory for this result.
Note: The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected.

If you require further details of the circumstances leading to the removal of the accreditation from any data item please do not hesitate to contact the laboratory

END OF REPORT



TEST REPORT

SOIL SAMPLE ANALYSIS

TES Report No. EFS/085478 (Ver. 1)

RPS Group Plc
St Annes House
Oxford Square
Oxford Street
Newbury

Site: Awe Burghfield

The 1 sample described in this report were logged for analysis by TES Bretby on 27-Aug-2008.
The analysis was completed by: 17-Sep-2008

The following tables are contained in this report:

Table 1 Main Analysis Results (Page 2)
Table of Report Notes (Page 3)

On behalf of
TES Bretby :
J Hannah



Project Co-ordinator

Date of Issue: 17-Sep-2008

Tests marked '^' have been subcontracted to another laboratory.

TES Bretby accepts no responsibility for any sampling not carried out by our personnel.

Where individual results are flagged see report notes for for status.

Units :																		
Method Codes :		SEN9	Sub02															
Method Reporting Limits :																		
TES ID Number	Client Sample Description	Asbestos (screening)	Asbestos ID															
0826021	TP8F-015 0.3		CH															
TES Bretby PO Box 100, Bretby Business Park, Burton-on-Trent, Staffordshire, DE15 0XD Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422		Client Name RPS Consultants Contact Mr G Moore	Awe Burghfield										Soils Sample Analysis Date Printed 17-Sep-08 Report Number EFS/085478 Table Number 1					

Report Notes

Soil/Solid analysis specific:

Results expressed as mg/kg on an air dried basis unless stated otherwise
S04 analysis not conducted in accordance with BS1377 unless otherwise stated
Water Soluble Sulphate on 2:1 water:soil extract
AR denotes analysis conducted on the As Received sample

Water analysis specific:

Results expressed as mg/l unless stated otherwise

Oil analysis specific:

Results expressed as mg/kg unless stated otherwise
S.G. expressed as g/cm³ @ 15°C

Filter analysis specific:

Results expressed as mg on filter unless stated otherwise

VOC analysis specific:

Explanatory notes for data flagging
U = undetected above reporting limit
J = concentration at instrument was below lowest calibration standard
E = concentration at instrument was above top calibration standard
B = compound was detected in method blank

Gas (Tedlar bag) analysis specific:

Results expressed as ug/l unless stated otherwise

Air (Carbon tube) analysis specific:

Results expressed as ug on tube unless stated otherwise

Asbestos analysis specific:

CH denotes Chrysotile
CR denotes Crocidolite
AM denotes Amosite
NADIS denotes No Asbestos Detected in Sample
NBFO denotes No Bulk fibres Observed

General notes:

^ this analysis was subcontracted to another laboratory
\$ Within laboratory tolerances
\$\$ unable to analyse due to nature of sample
¥ Results for guidance only, possible interference
& Blank corrected
I.S insufficient sample for analysis
Intf Unable to analyse due to interferences
N.D Not determined
N.R Not recorded
N.Det Not detected
Req Analysis Requested, see attached sheets for results
p Raised detection limit due to nature of sample
***** denotes that all accreditation has been removed by the laboratory for this result.
‡ denotes that Mcerts accreditation has been removed by the laboratory for this result.
Note: The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected.

If you require further details of the circumstances leading to the removal of the accreditation from any data item please do not hesitate to contact the laboratory

END OF REPORT



TEST REPORT

SOIL SAMPLE ANALYSIS



TES Report No. EFS/085506M (Ver. 3)

RPS Group Plc
St Annes House
Oxford Square
Oxford Street
Newbury

Site: Awe Burghfield

The 9 samples described in this report were logged for analysis by TES Bretby on 28-Aug-2008.
The analysis was completed by: 18-Sep-2008

Tests where the accreditation is set to N or No, and any individual data items marked with a * are not UKAS or MCERTS accredited
Any opinions or interpretations expressed herein are outside the scope of any UKAS accreditation held by TES Bretby Laboratories.

The following tables are contained in this report:

Table 1 Main Analysis Results (Pages 2 to 3)
Table of PAH (MS-SIM) (80) Results (Pages 4 to 14)
Table of TPH (Si) banding (std) (Page 15)
GC-FID Chromatograms (Pages 16 to 37)
Table of Report Notes (Page 38)

On behalf of
TES Bretby :
J Hannah

J. Hannah
Project Co-ordinator

Date of Issue: 22-Sep-2008

Accreditation Codes: **N** (Not Accredited), **U** (UKAS), **UM** (UKAS & MCERTS)

Tests marked 'A' have been subcontracted to another laboratory.

(NVM) - denotes the sample matrix is dissimilar to matrices upon which the MCERTS validation was based,
and is therefore not accredited for MCERTS.

All results are reported on a dry weight basis at 105°C unless otherwise stated. (except QC samples)
TES Bretby accepts no responsibility for any sampling not carried out by our personnel.

Where individual results are flagged see report notes for for status.

Polycyclic Aromatic Hydrocarbons GC/MS (SIM)

Customer and Site Details:	RPS Consultants: Awe Burghfield	
Sample Details:	HP8S-004 0.0-1.2	Job Number: S08_5506M
LIMS ID Number:	CL0825413	Date Booked in: 28-Aug-08
QC Batch Number:	3263	Date Extracted: 12-Sep-08
Quantitation File:	Initial Calibration	Date Analysed: 15-Sep-08
Directory:	0914VOC.MS6\	Matrix: Soil
Dilution:	1.0	Ext Method: Ultrasonic

Accredited?: Yes

Target Compounds	CAS #	R.T. (min)	Concentration mg/kg	% Fit	Accr. code
Naphthalene	91-20-3	-	< 0.10	-	UM
Acenaphthylene	208-96-8	-	< 0.10	-	U
Acenaphthene	83-32-9	-	< 0.10	-	UM
Fluorene	86-73-7	-	< 0.10	-	UM
Phenanthrene	85-01-8	-	< 0.10	-	UM
Anthracene	120-12-7	-	< 0.10	-	U
Fluoranthene	206-44-0	-	< 0.10	-	UM
Pyrene	129-00-0	-	< 0.10	-	UM
Benzo[a]anthracene	56-55-3	-	< 0.10	-	UM
Chrysene	218-01-9	-	< 0.10	-	UM
Benzo[b]fluoranthene	205-99-2	-	< 0.10	-	UM
Benzo[k]fluoranthene	207-08-9	-	< 0.10	-	UM
Benzo[a]pyrene	50-32-8	-	< 0.10	-	UM
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.10	-	UM
Dibenzo[a,h]anthracene	53-70-3	-	< 0.10	-	UM
Benzo[g,h,i]perylene	191-24-2	-	< 0.10	-	UM
Coronene	191-07-1 *	-	< 0.10	-	N
Total (USEPA16) PAHs	-	-	< 1.62	-	N

* Denotes compound is not UKAS accredited

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	111
Acenaphthene-d10	96
Phenanthrene-d10	94
Chrysene-d12	87
Perylene-d12	78

Surrogates	% Rec
Nitrobenzene-d5	N.D
2-Fluorobiphenyl	89
Terphenyl-d14	109

Concentrations are reported on a dry weight basis.

The Total PAH result is the sum of non-rounded individual PAH results and therefore may differ to the sum of the rounded individual PAH results printed above. By convention, where any one or more result is a "less than", the total is expressed as a "less than" and includes the "less than" concentration within the total.

Polycyclic Aromatic Hydrocarbons GC/MS (SIM)

Customer and Site Details:	RPS Consultants: Awe Burghfield	
Sample Details:	BH8S-001 1.0-1.5	Job Number: S08_5506M
LIMS ID Number:	CL0825414	Date Booked in: 28-Aug-08
QC Batch Number:	3263	Date Extracted: 12-Sep-08
Quantitation File:	Initial Calibration	Date Analysed: 15-Sep-08
Directory:	0914VOC.MS6\	Matrix: Soil
Dilution:	1.0	Ext Method: Ultrasonic

Accredited?: Yes

Target Compounds	CAS #	R.T. (min)	Concentration mg/kg	% Fit	Accr. code
Naphthalene	91-20-3	-	< 0.10	-	UM
Acenaphthylene	208-96-8	-	< 0.10	-	U
Acenaphthene	83-32-9	-	< 0.10	-	UM
Fluorene	86-73-7	-	< 0.10	-	UM
Phenanthrene	85-01-8	-	< 0.10	-	UM
Anthracene	120-12-7	-	< 0.10	-	U
Fluoranthene	206-44-0	-	< 0.10	-	UM
Pyrene	129-00-0	-	< 0.10	-	UM
Benzo[a]anthracene	56-55-3	-	< 0.10	-	UM
Chrysene	218-01-9	-	< 0.10	-	UM
Benzo[b]fluoranthene	205-99-2	-	< 0.10	-	UM
Benzo[k]fluoranthene	207-08-9	-	< 0.10	-	UM
Benzo[a]pyrene	50-32-8	-	< 0.10	-	UM
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.10	-	UM
Dibenzo[a,h]anthracene	53-70-3	-	< 0.10	-	UM
Benzo[g,h,i]perylene	191-24-2	-	< 0.10	-	UM
Coronene	191-07-1 *	-	< 0.10	-	N
Total (USEPA16) PAHs	-	-	< 1.62	-	N

* Denotes compound is not UKAS accredited

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	121
Acenaphthene-d10	106
Phenanthrene-d10	104
Chrysene-d12	92
Perylene-d12	85

Surrogates	% Rec
Nitrobenzene-d5	N.D
2-Fluorobiphenyl	85
Terphenyl-d14	101

Concentrations are reported on a dry weight basis.

The Total PAH result is the sum of non-rounded individual PAH results and therefore may differ to the sum of the rounded individual PAH results printed above. By convention, where any one or more result is a "less than", the total is expressed as a "less than" and includes the "less than" concentration within the total.

Polycyclic Aromatic Hydrocarbons GC/MS (SIM)

Customer and Site Details:	RPS Consultants: Awe Burghfield	
Sample Details:	BH8S-002 1.5	Job Number: S08_5506M
LIMS ID Number:	CL0825415	Date Booked in: 28-Aug-08
QC Batch Number:	3263	Date Extracted: 12-Sep-08
Quantitation File:	Initial Calibration	Date Analysed: 15-Sep-08
Directory:	0914VOC.MS6\	Matrix: Soil
Dilution:	1.0	Ext Method: Ultrasonic

Accredited?: Yes

Target Compounds	CAS #	R.T. (min)	Concentration mg/kg	% Fit	Accr. code
Naphthalene	91-20-3	-	< 0.10	-	UM
Acenaphthylene	208-96-8	-	< 0.10	-	U
Acenaphthene	83-32-9	-	< 0.10	-	UM
Fluorene	86-73-7	-	< 0.10	-	UM
Phenanthrene	85-01-8	-	< 0.10	-	UM
Anthracene	120-12-7	-	< 0.10	-	U
Fluoranthene	206-44-0	-	< 0.10	-	UM
Pyrene	129-00-0	-	< 0.10	-	UM
Benzo[a]anthracene	56-55-3	-	< 0.10	-	UM
Chrysene	218-01-9	-	< 0.10	-	UM
Benzo[b]fluoranthene	205-99-2	-	< 0.10	-	UM
Benzo[k]fluoranthene	207-08-9	-	< 0.10	-	UM
Benzo[a]pyrene	50-32-8	-	< 0.10	-	UM
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.10	-	UM
Dibenzo[a,h]anthracene	53-70-3	-	< 0.10	-	UM
Benzo[g,h,i]perylene	191-24-2	-	< 0.10	-	UM
Coronene	191-07-1 *	-	< 0.10	-	N
Total (USEPA16) PAHs	-	-	< 1.58	-	N

* Denotes compound is not UKAS accredited

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	115
Acenaphthene-d10	101
Phenanthrene-d10	98
Chrysene-d12	87
Perylene-d12	84

Surrogates	% Rec
Nitrobenzene-d5	N.D
2-Fluorobiphenyl	87
Terphenyl-d14	104

Concentrations are reported on a dry weight basis.

The Total PAH result is the sum of non-rounded individual PAH results and therefore may differ to the sum of the rounded individual PAH results printed above. By convention, where any one or more result is a "less than", the total is expressed as a "less than" and includes the "less than" concentration within the total.

Polycyclic Aromatic Hydrocarbons GC/MS (SIM)

Customer and Site Details:	RPS Consultants: Awe Burghfield	
Sample Details:	HP8S-003 0.8	Job Number: S08_5506M
LIMS ID Number:	CL0825416	Date Booked in: 28-Aug-08
QC Batch Number:	3263	Date Extracted: 12-Sep-08
Quantitation File:	Initial Calibration	Date Analysed: 15-Sep-08
Directory:	0914VOC.MS6\	Matrix: Soil
Dilution:	1.0	Ext Method: Ultrasonic

Accredited?: Yes

Target Compounds	CAS #	R.T. (min)	Concentration mg/kg	% Fit	Accr. code
Naphthalene	91-20-3	-	< 0.10	-	UM
Acenaphthylene	208-96-8	-	< 0.10	-	U
Acenaphthene	83-32-9	-	< 0.10	-	UM
Fluorene	86-73-7	-	< 0.10	-	UM
Phenanthrene	85-01-8	5.41	0.23	100	UM
Anthracene	120-12-7	-	< 0.10	-	U
Fluoranthene	206-44-0	7.08	0.40	83	UM
Pyrene	129-00-0	7.38	0.30	84	UM
Benzo[a]anthracene	56-55-3	-	< 0.10	-	UM
Chrysene	218-01-9	-	< 0.10	-	UM
Benzo[b]fluoranthene	205-99-2	-	< 0.10	-	UM
Benzo[k]fluoranthene	207-08-9	-	< 0.10	-	UM
Benzo[a]pyrene	50-32-8	-	< 0.10	-	UM
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.10	-	UM
Dibenzo[a,h]anthracene	53-70-3	-	< 0.10	-	UM
Benzo[g,h,i]perylene	191-24-2	-	< 0.10	-	UM
Coronene	191-07-1 *	-	< 0.10	-	N
Total (USEPA16) PAHs	-	-	< 2.22	-	N

* Denotes compound is not UKAS accredited

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	113
Acenaphthene-d10	98
Phenanthrene-d10	98
Chrysene-d12	91
Perylene-d12	85

Surrogates	% Rec
Nitrobenzene-d5	N.D
2-Fluorobiphenyl	89
Terphenyl-d14	103

Concentrations are reported on a dry weight basis.

The Total PAH result is the sum of non-rounded individual PAH results and therefore may differ to the sum of the rounded individual PAH results printed above. By convention, where any one or more result is a "less than", the total is expressed as a "less than" and includes the "less than" concentration within the total.

Polycyclic Aromatic Hydrocarbons GC/MS (SIM)

Customer and Site Details:	RPS Consultants: Awe Burghfield		
Sample Details:	HP8S-002 0.6	Job Number:	S08_5506M
LIMS ID Number:	CL0825417	Date Booked in:	28-Aug-08
QC Batch Number:	3263	Date Extracted:	12-Sep-08
Quantitation File:	Initial Calibration	Date Analysed:	15-Sep-08
Directory:	0914VOC.MS6\	Matrix:	Soil
Dilution:	1.0	Ext Method:	Ultrasonic

Accredited?: Yes

Target Compounds	CAS #	R.T. (min)	Concentration mg/kg	% Fit	Accr. code
Naphthalene	91-20-3	-	< 0.10	-	UM
Acenaphthylene	208-96-8	-	< 0.10	-	U
Acenaphthene	83-32-9	-	< 0.10	-	UM
Fluorene	86-73-7	-	< 0.10	-	UM
Phenanthrene	85-01-8	-	< 0.10	-	UM
Anthracene	120-12-7	-	< 0.10	-	U
Fluoranthene	206-44-0	-	< 0.10	-	UM
Pyrene	129-00-0	-	< 0.10	-	UM
Benzo[a]anthracene	56-55-3	-	< 0.10	-	UM
Chrysene	218-01-9	-	< 0.10	-	UM
Benzo[b]fluoranthene	205-99-2	-	< 0.10	-	UM
Benzo[k]fluoranthene	207-08-9	-	< 0.10	-	UM
Benzo[a]pyrene	50-32-8	-	< 0.10	-	UM
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.10	-	UM
Dibenzo[a,h]anthracene	53-70-3	-	< 0.10	-	UM
Benzo[g,h,i]perylene	191-24-2	-	< 0.10	-	UM
Coronene	191-07-1 *	-	< 0.10	-	N
Total (USEPA16) PAHs	-	-	< 1.55	-	N

* Denotes compound is not UKAS accredited

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	105
Acenaphthene-d10	92
Phenanthrene-d10	88
Chrysene-d12	85
Perylene-d12	80

Surrogates	% Rec
Nitrobenzene-d5	N.D
2-Fluorobiphenyl	88
Terphenyl-d14	103

Concentrations are reported on a dry weight basis.

The Total PAH result is the sum of non-rounded individual PAH results and therefore may differ to the sum of the rounded individual PAH results printed above. By convention, where any one or more result is a "less than", the total is expressed as a "less than" and includes the "less than" concentration within the total.

Polycyclic Aromatic Hydrocarbons GC/MS (SIM)

Customer and Site Details:	RPS Consultants: Awe Burghfield	
Sample Details:	TP8S-001 1.1	Job Number: S08_5506M
LIMS ID Number:	CL0825418	Date Booked in: 28-Aug-08
QC Batch Number:	3263	Date Extracted: 12-Sep-08
Quantitation File:	Initial Calibration	Date Analysed: 15-Sep-08
Directory:	0914VOC.MS6\	Matrix: Soil
Dilution:	1.0	Ext Method: Ultrasonic

Accredited?: Yes

Target Compounds	CAS #	R.T. (min)	Concentration mg/kg	% Fit	Accr. code
Naphthalene	91-20-3	-	< 0.10	-	UM
Acenaphthylene	208-96-8	-	< 0.10	-	U
Acenaphthene	83-32-9	-	< 0.10	-	UM
Fluorene	86-73-7	-	< 0.10	-	UM
Phenanthrene	85-01-8	-	< 0.10	-	UM
Anthracene	120-12-7	-	< 0.10	-	U
Fluoranthene	206-44-0	-	< 0.10	-	UM
Pyrene	129-00-0	-	< 0.10	-	UM
Benzo[a]anthracene	56-55-3	-	< 0.10	-	UM
Chrysene	218-01-9	-	< 0.10	-	UM
Benzo[b]fluoranthene	205-99-2	-	< 0.10	-	UM
Benzo[k]fluoranthene	207-08-9	-	< 0.10	-	UM
Benzo[a]pyrene	50-32-8	-	< 0.10	-	UM
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.10	-	UM
Dibenzo[a,h]anthracene	53-70-3	-	< 0.10	-	UM
Benzo[g,h,i]perylene	191-24-2	-	< 0.10	-	UM
Coronene	191-07-1 *	-	< 0.10	-	N
Total (USEPA16) PAHs	-	-	< 1.66	-	N

* Denotes compound is not UKAS accredited

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	117
Acenaphthene-d10	103
Phenanthrene-d10	100
Chrysene-d12	89
Perylene-d12	81

Surrogates	% Rec
Nitrobenzene-d5	N.D
2-Fluorobiphenyl	86
Terphenyl-d14	103

Concentrations are reported on a dry weight basis.

The Total PAH result is the sum of non-rounded individual PAH results and therefore may differ to the sum of the rounded individual PAH results printed above. By convention, where any one or more result is a "less than", the total is expressed as a "less than" and includes the "less than" concentration within the total.

Polycyclic Aromatic Hydrocarbons GC/MS (SIM)

Customer and Site Details:	RPS Consultants: Awe Burghfield		
Sample Details:	TP8S-003 1.1	Job Number:	S08_5506M
LIMS ID Number:	CL0825419	Date Booked in:	28-Aug-08
QC Batch Number:	3263	Date Extracted:	12-Sep-08
Quantitation File:	Initial Calibration	Date Analysed:	15-Sep-08
Directory:	0914VOC.MS6\	Matrix:	Soil
Dilution:	1.0	Ext Method:	Ultrasonic

Accredited?: Yes

Target Compounds	CAS #	R.T. (min)	Concentration mg/kg	% Fit	Accr. code
Naphthalene	91-20-3	-	< 0.10	-	UM
Acenaphthylene	208-96-8	-	< 0.10	-	U
Acenaphthene	83-32-9	-	< 0.10	-	UM
Fluorene	86-73-7	-	< 0.10	-	UM
Phenanthrene	85-01-8	-	< 0.10	-	UM
Anthracene	120-12-7	-	< 0.10	-	U
Fluoranthene	206-44-0	-	< 0.10	-	UM
Pyrene	129-00-0	-	< 0.10	-	UM
Benzo[a]anthracene	56-55-3	-	< 0.10	-	UM
Chrysene	218-01-9	-	< 0.10	-	UM
Benzo[b]fluoranthene	205-99-2	-	< 0.10	-	UM
Benzo[k]fluoranthene	207-08-9	-	< 0.10	-	UM
Benzo[a]pyrene	50-32-8	-	< 0.10	-	UM
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.10	-	UM
Dibenzo[a,h]anthracene	53-70-3	-	< 0.10	-	UM
Benzo[g,h,i]perylene	191-24-2	-	< 0.10	-	UM
Coronene	191-07-1 *	-	< 0.10	-	N
Total (USEPA16) PAHs	-	-	< 1.63	-	N

* Denotes compound is not UKAS accredited

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	108
Acenaphthene-d10	95
Phenanthrene-d10	91
Chrysene-d12	74
Perylene-d12	71

Surrogates	% Rec
Nitrobenzene-d5	N.D
2-Fluorobiphenyl	86
Terphenyl-d14	110

Concentrations are reported on a dry weight basis.

The Total PAH result is the sum of non-rounded individual PAH results and therefore may differ to the sum of the rounded individual PAH results printed above. By convention, where any one or more result is a "less than", the total is expressed as a "less than" and includes the "less than" concentration within the total.

Polycyclic Aromatic Hydrocarbons GC/MS (SIM)

Customer and Site Details:	RPS Consultants: Awe Burghfield		
Sample Details:	TP8S-002 1.0	Job Number:	S08_5506M
LIMS ID Number:	CL0825420	Date Booked in:	28-Aug-08
QC Batch Number:	3263	Date Extracted:	12-Sep-08
Quantitation File:	Initial Calibration	Date Analysed:	15-Sep-08
Directory:	0914VOC.MS6\	Matrix:	Soil
Dilution:	1.0	Ext Method:	Ultrasonic

Accredited?: Yes

Target Compounds	CAS #	R.T. (min)	Concentration mg/kg	% Fit	Accr. code
Naphthalene	91-20-3	-	< 0.10	-	UM
Acenaphthylene	208-96-8	-	< 0.10	-	U
Acenaphthene	83-32-9	-	< 0.10	-	UM
Fluorene	86-73-7	-	< 0.10	-	UM
Phenanthrene	85-01-8	-	< 0.10	-	UM
Anthracene	120-12-7	-	< 0.10	-	U
Fluoranthene	206-44-0	-	< 0.10	-	UM
Pyrene	129-00-0	-	< 0.10	-	UM
Benzo[a]anthracene	56-55-3	-	< 0.10	-	UM
Chrysene	218-01-9	-	< 0.10	-	UM
Benzo[b]fluoranthene	205-99-2	-	< 0.10	-	UM
Benzo[k]fluoranthene	207-08-9	-	< 0.10	-	UM
Benzo[a]pyrene	50-32-8	-	< 0.10	-	UM
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.10	-	UM
Dibenzo[a,h]anthracene	53-70-3	-	< 0.10	-	UM
Benzo[g,h,i]perylene	191-24-2	-	< 0.10	-	UM
Coronene	191-07-1 *	-	< 0.10	-	N
Total (USEPA16) PAHs	-	-	< 1.53	-	N

* Denotes compound is not UKAS accredited

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	117
Acenaphthene-d10	103
Phenanthrene-d10	98
Chrysene-d12	88
Perylene-d12	82

Surrogates	% Rec
Nitrobenzene-d5	N.D
2-Fluorobiphenyl	84
Terphenyl-d14	101

Concentrations are reported on a dry weight basis.

The Total PAH result is the sum of non-rounded individual PAH results and therefore may differ to the sum of the rounded individual PAH results printed above. By convention, where any one or more result is a "less than", the total is expressed as a "less than" and includes the "less than" concentration within the total.

Polycyclic Aromatic Hydrocarbons GC/MS (SIM)

Customer and Site Details:	RPS Consultants: Awe Burghfield	
Sample Details:	TP8F-015 0.3-0.6	Job Number: S08_5506M
LIMS ID Number:	CL0825423	Date Booked in: 28-Aug-08
QC Batch Number:	3263	Date Extracted: 12-Sep-08
Quantitation File:	Initial Calibration	Date Analysed: 15-Sep-08
Directory:	0914VOC.MS6\	Matrix: Soil
Dilution:	1.0	Ext Method: Ultrasonic

Accredited?: Yes

Target Compounds	CAS #	R.T. (min)	Concentration mg/kg	% Fit	Accr. code
Naphthalene	91-20-3	-	< 0.09	-	UM
Acenaphthylene	208-96-8	-	< 0.09	-	U
Acenaphthene	83-32-9	-	< 0.09	-	UM
Fluorene	86-73-7	-	< 0.09	-	UM
Phenanthrene	85-01-8	5.41	0.16	98	UM
Anthracene	120-12-7	-	< 0.09	-	U
Fluoranthene	206-44-0	7.08	0.65	84	UM
Pyrene	129-00-0	7.38	0.49	83	UM
Benzo[a]anthracene	56-55-3	9.23	0.30	55	UM
Chrysene	218-01-9	9.28	0.39	99	UM
Benzo[b]fluoranthene	205-99-2	10.80	0.27	91	UM
Benzo[k]fluoranthene	207-08-9	10.82	0.26	93	UM
Benzo[a]pyrene	50-32-8	11.21	0.30	92	UM
Indeno[1,2,3-cd]pyrene	193-39-5	12.58	0.22	63	UM
Dibenzo[a,h]anthracene	53-70-3	-	< 0.09	-	UM
Benzo[g,h,i]perylene	191-24-2	12.85	0.17	53	UM
Coronene	191-07-1 *	-	< 0.09	-	N
Total (USEPA16) PAHs	-	-	< 3.83	-	N

* Denotes compound is not UKAS accredited

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	115
Acenaphthene-d10	101
Phenanthrene-d10	100
Chrysene-d12	90
Perylene-d12	83

Surrogates	% Rec
Nitrobenzene-d5	N.D
2-Fluorobiphenyl	81
Terphenyl-d14	94

Concentrations are reported on a dry weight basis.

The Total PAH result is the sum of non-rounded individual PAH results and therefore may differ to the sum of the rounded individual PAH results printed above. By convention, where any one or more result is a "less than", the total is expressed as a "less than" and includes the "less than" concentration within the total.

ALIPHATIC / AROMATIC FRACTION BY GC/FID

Customer and Site Details: RPS Consultants : Awe Burghfield
Job Number: S08_5506
QC Batch Number: 83219
Directory: D:\TES\DATA\Y2008\0910TPH_GC3\060B6801.D
Method: Ultra Sonic

Separation: Silica gel
Eluents: Hexane, DCM

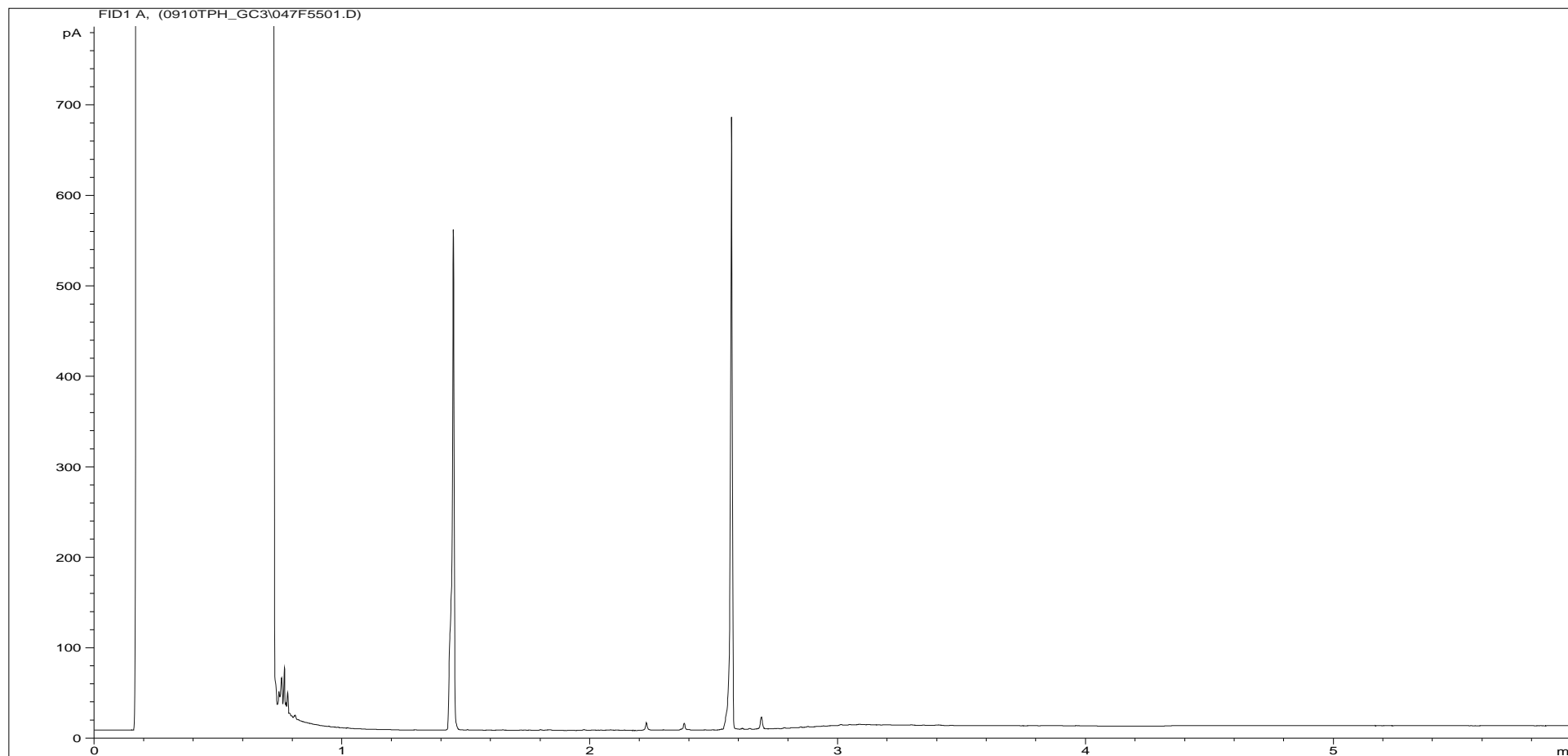
Matrix: Soil
Date Booked in: 28-Aug-08
Date Extracted: 09-Sep-08
Date Analysed: 11-Sep-08

Concentration, (mg/kg) - as dry weight.

This sample data is not accredited.

Sample ID	Client ID	>C8 - C10		>C10 - C12		>C12 - C16		>C16 - C21		>C21 - C35	
		Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics
* CL0825413	HP8S-004 0.0-1.2	<5	<5	<5	<5	<5	<5	<5	<5	<11.10	<11.10
* CL0825414	BH8S-001 1.0-1.5	<5	<5	<5	<5	<5	<5	<5	<5	<11.06	<11.06
* CL0825415	BH8S-002 1.5	<5	<5	<5	<5	<5	<5	<5	<5	<10.84	<10.84
* CL0825416	HP8S-003 0.8	<5	<5	<5	<5	<5	<5	<5	<5	<11.22	<11.22
* CL0825417	HP8S-002 0.6	<5	<5	<5	<5	<5	<5	<5	<5	<10.59	<10.59
* CL0825418	TP8S-001 1.1	<5	<5	<5	<5	<5	<5	<5	<5	<11.35	<11.35
* CL0825419	TP8S-003 1.1	<5	<5	<5	<5	<5	<5	<5	<5	<11.17	<11.17
* CL0825420	TP8S-002 1.0	<5	<5	<5	<5	<5	<5	<5	<5	<10.45	<10.45
*											
*											
* CL0825423	TP8F-015 0.3-0.6	<5	<5	<5	<5	<5	<5	<5	9.53	23.2	49.9

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



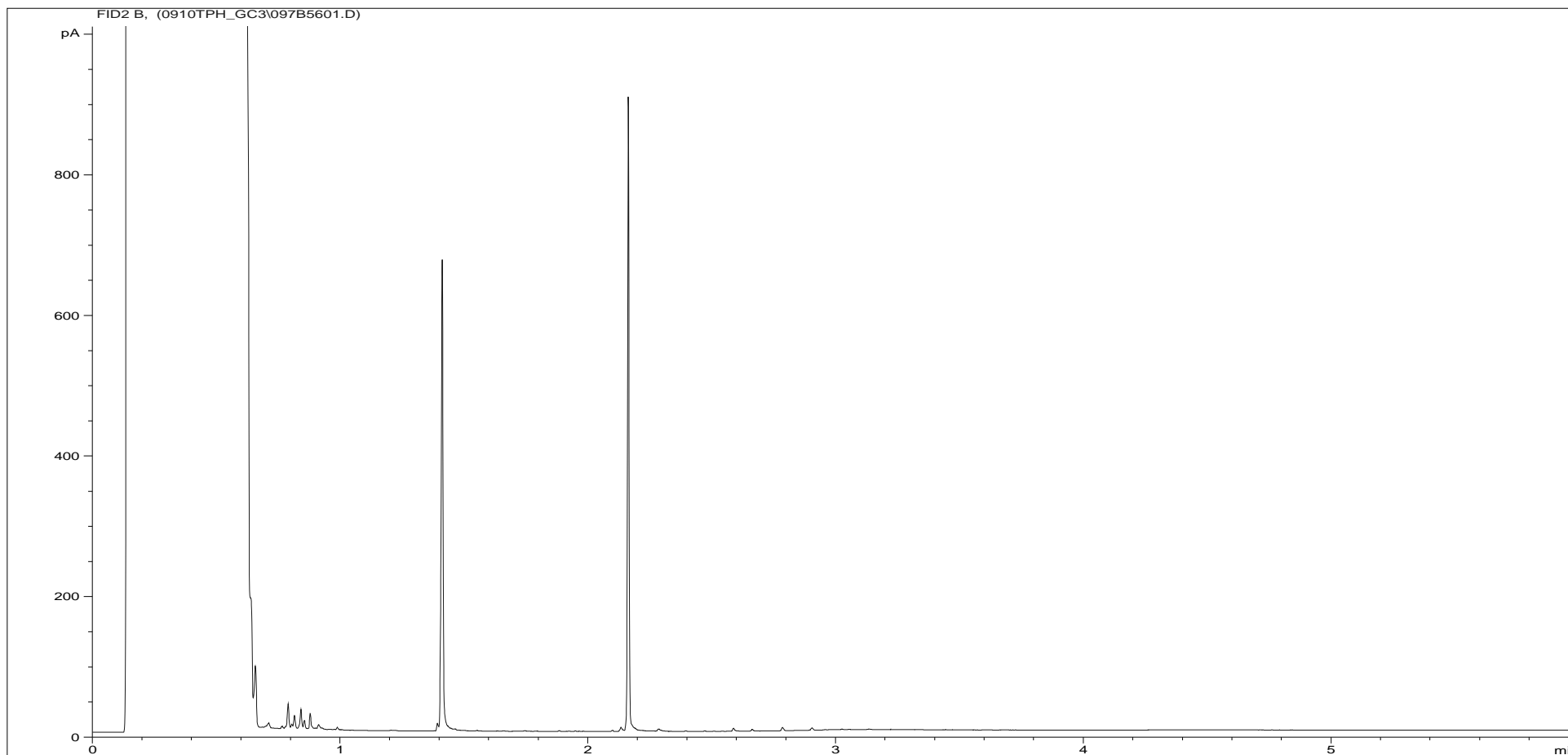
Sample ID:	CL0825413ALI	Job Number:	S08_5506M
Multiplier:	14.44	Client:	RPS Consultants
Dilution:	1	Site:	Awe Burghfield
Acquisition Method:	5UL_RUNF.M	Client Sample Ref:	HP8S-004 0.0-1.2
Acquisition Date/Time:	10-Sep-08		
Datafile:	D:\TES\DATA\Y2008\0910TPH_GC3\047F5501.D		

Where individual results are flagged see report notes for for status.

Results corrected to dry weight at 105°C where appropriate, in accordance with the MCERTS standard.

EFS/085506M Ver. 3

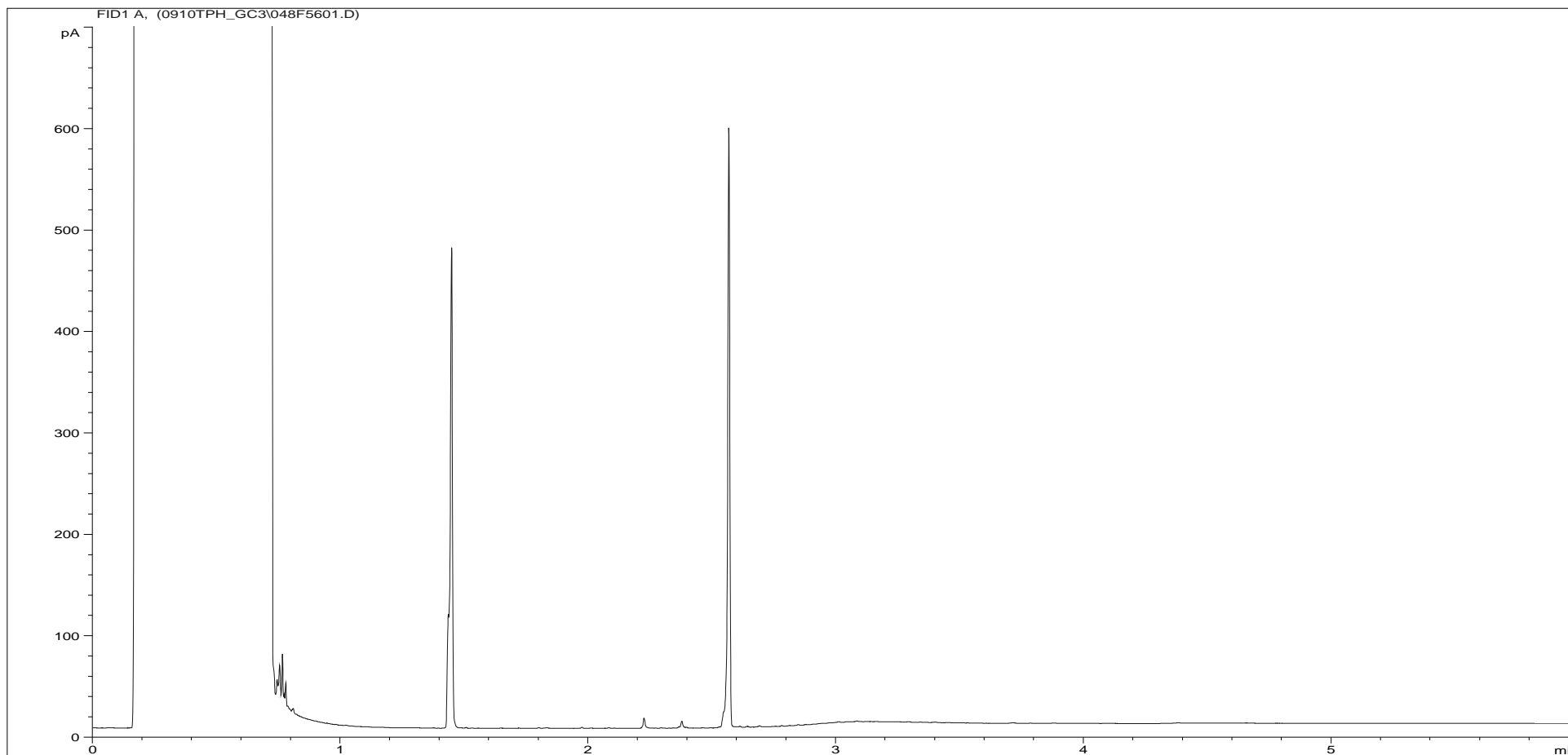
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



Sample ID:	CL0825413ARO	Job Number:	S08_5506M
Multiplier:	11.02	Client:	RPS Consultants
Dilution:	1	Site:	Awe Burghfield
Acquisition Method:	5UL_RUNF.M	Client Sample Ref:	HP8S-004 0.0-1.2
Acquisition Date/Time:	10-Sep-08		
Datafile:	D:\TES\DATA\Y2008\0910TPH_GC3\097B5601.D		

Where individual results are flagged see report notes for for status.

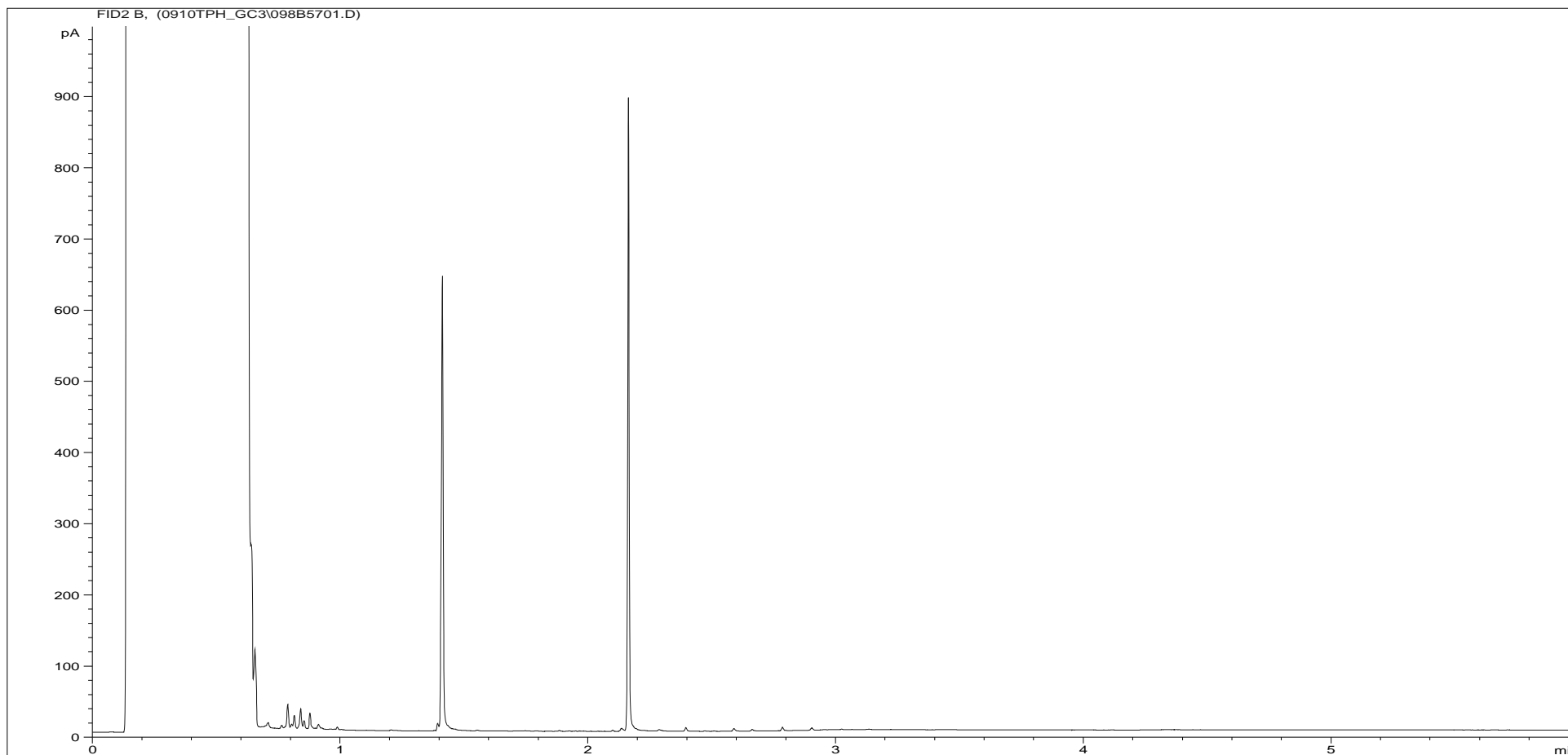
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



Sample ID:	CL0825414ALI	Job Number:	S08_5506M
Multiplier:	14.44	Client:	RPS Consultants
Dilution:	1	Site:	Awe Burghfield
Acquisition Method:	5UL_RUNF.M	Client Sample Ref:	BH8S-001 1.0-1.5
Acquisition Date/Time:	10-Sep-08		
Datafile:	D:\TES\DATA\Y2008\0910TPH_GC3\048F5601.D		

Where individual results are flagged see report notes for for status.

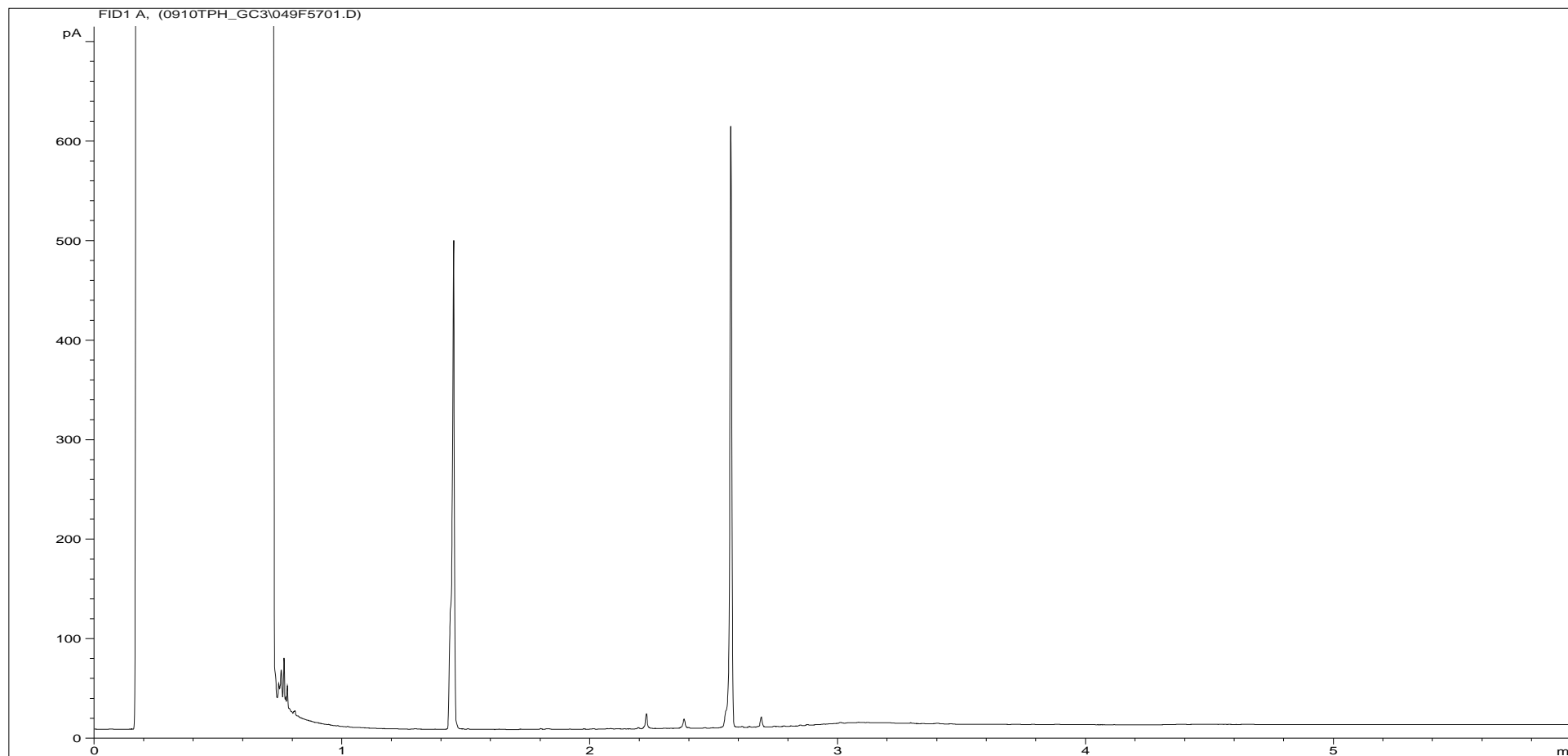
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



Sample ID:	CL0825414ARO	Job Number:	S08_5506M
Multiplier:	11.02	Client:	RPS Consultants
Dilution:	1	Site:	Awe Burghfield
Acquisition Method:	5UL_RUNF.M	Client Sample Ref:	BH8S-001 1.0-1.5
Acquisition Date/Time:	10-Sep-08		
Datafile:	D:\TES\DATA\Y2008\0910TPH_GC3\098B5701.D		

Where individual results are flagged see report notes for for status.

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



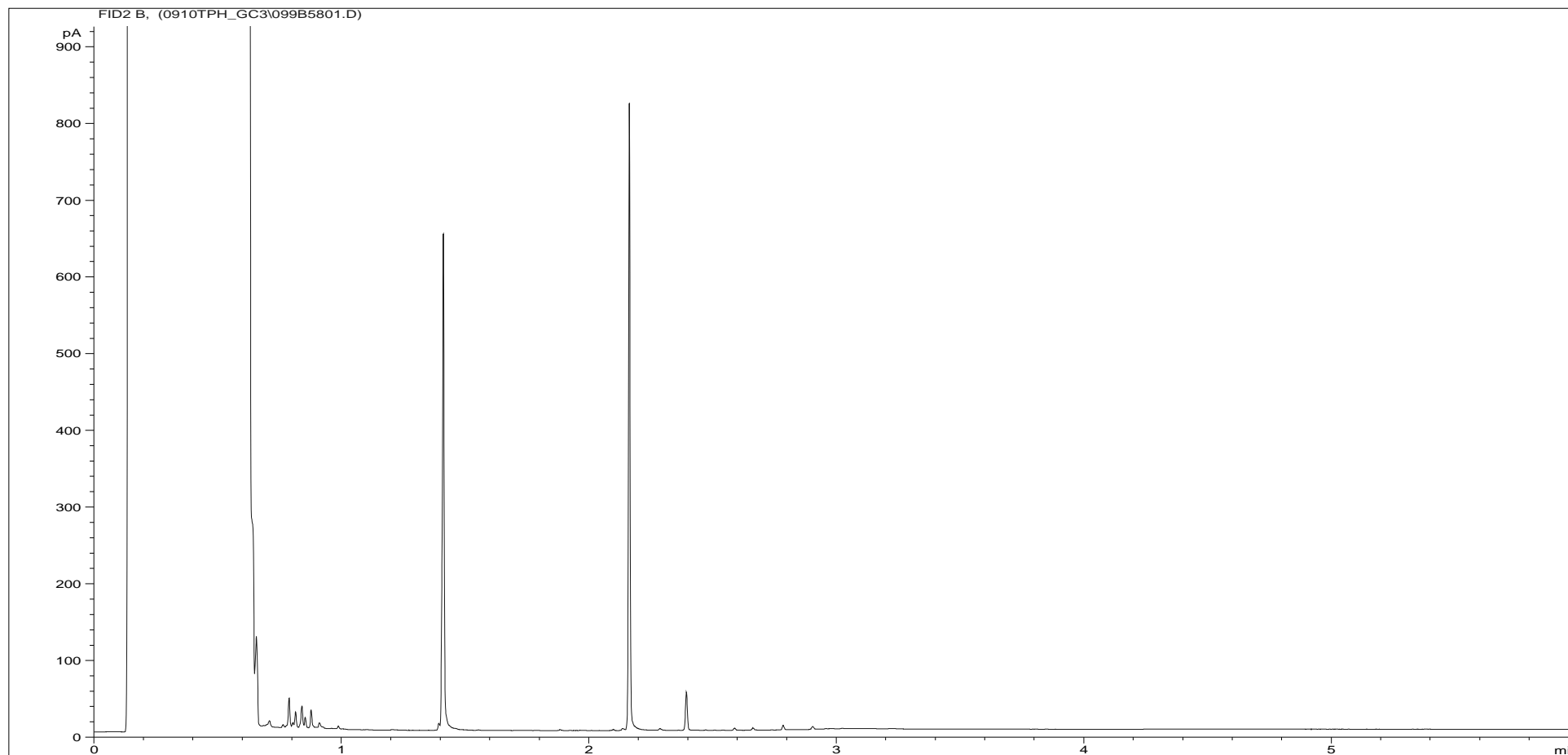
Sample ID:	CL0825415ALI	Job Number:	S08_5506M
Multiplier:	15.96	Client:	RPS Consultants
Dilution:	1	Site:	Awe Burghfield
Acquisition Method:	5UL_RUNF.M	Client Sample Ref:	BH8S-002 1.5
Acquisition Date/Time:	10-Sep-08		
Datafile:	D:\TES\DATA\Y2008\0910TPH_GC3\049F5701.D		

Where individual results are flagged see report notes for for status.

Results corrected to dry weight at 105°C where appropriate, in accordance with the MCERTS standard.

EFS/085506M Ver. 3

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



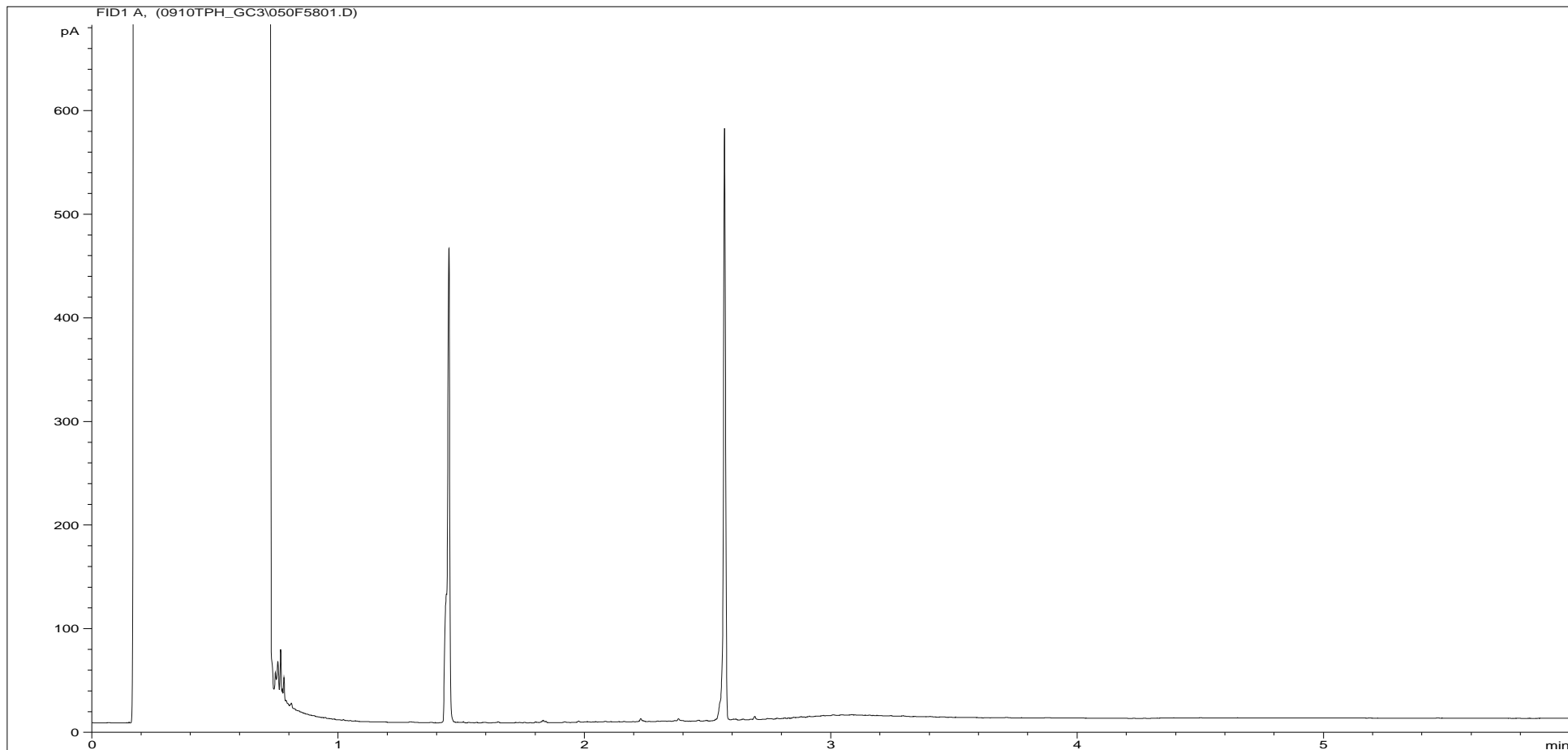
Sample ID:	CL0825415ARO	Job Number:	S08_5506M
Multiplier:	12.18	Client:	RPS Consultants
Dilution:	1	Site:	Awe Burghfield
Acquisition Method:	5UL_RUNF.M	Client Sample Ref:	BH8S-002 1.5
Acquisition Date/Time:	10-Sep-08		
Datafile:	D:\TES\DATA\Y2008\0910TPH_GC3\099B5801.D		

Where individual results are flagged see report notes for for status.

Results corrected to dry weight at 105°C where appropriate, in accordance with the MCERTS standard.

EFS/085506M Ver. 3

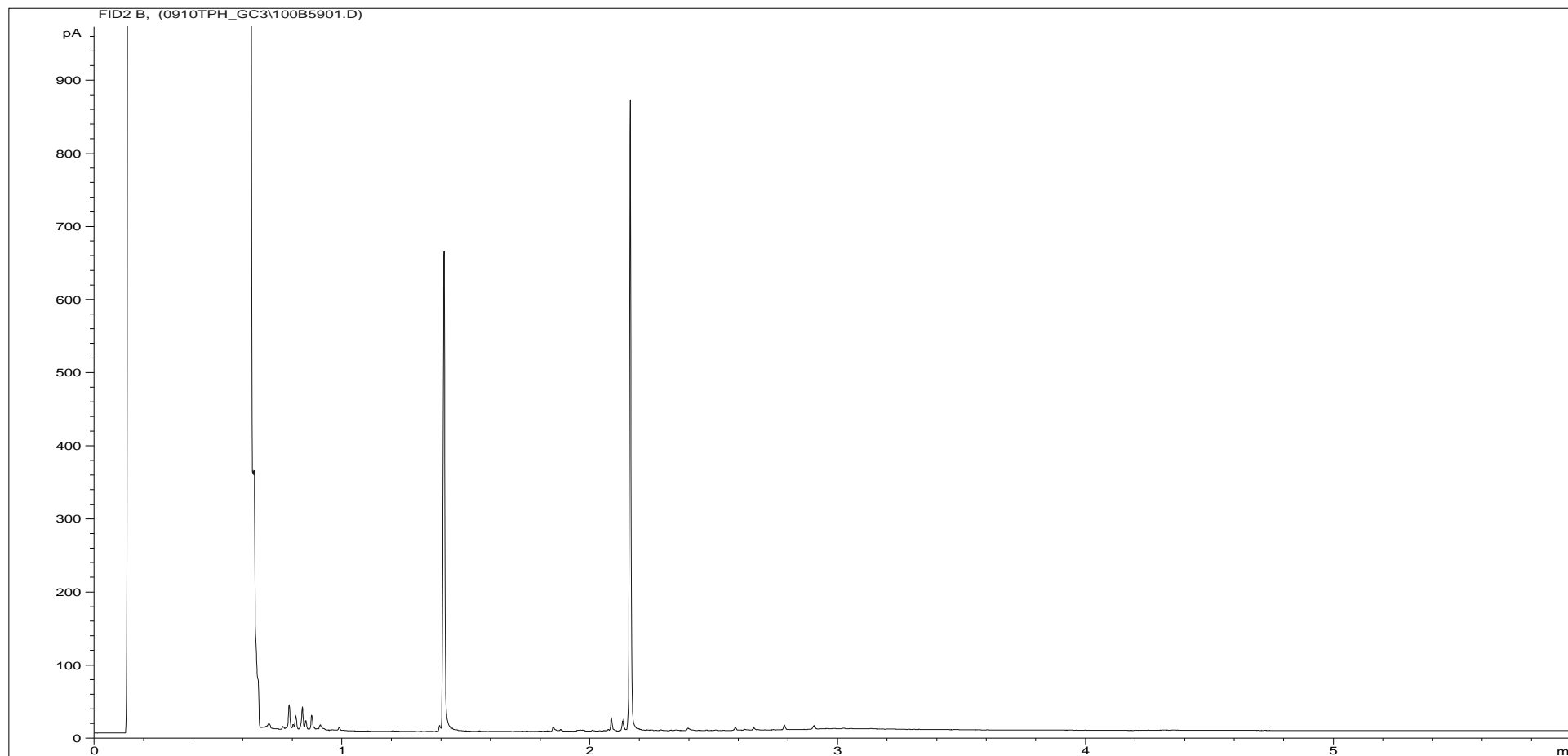
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



Sample ID:	CL0825416ALI	Job Number:	S08_5506M
Multiplier:	14.44	Client:	RPS Consultants
Dilution:	1	Site:	Awe Burghfield
Acquisition Method:	5UL_RUNF.M	Client Sample Ref:	HP8S-003 0.8
Acquisition Date/Time:	10-Sep-08		
Datafile:	D:\TES\DATA\Y2008\0910TPH_GC3\050F5801.D		

Where individual results are flagged see report notes for for status.

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



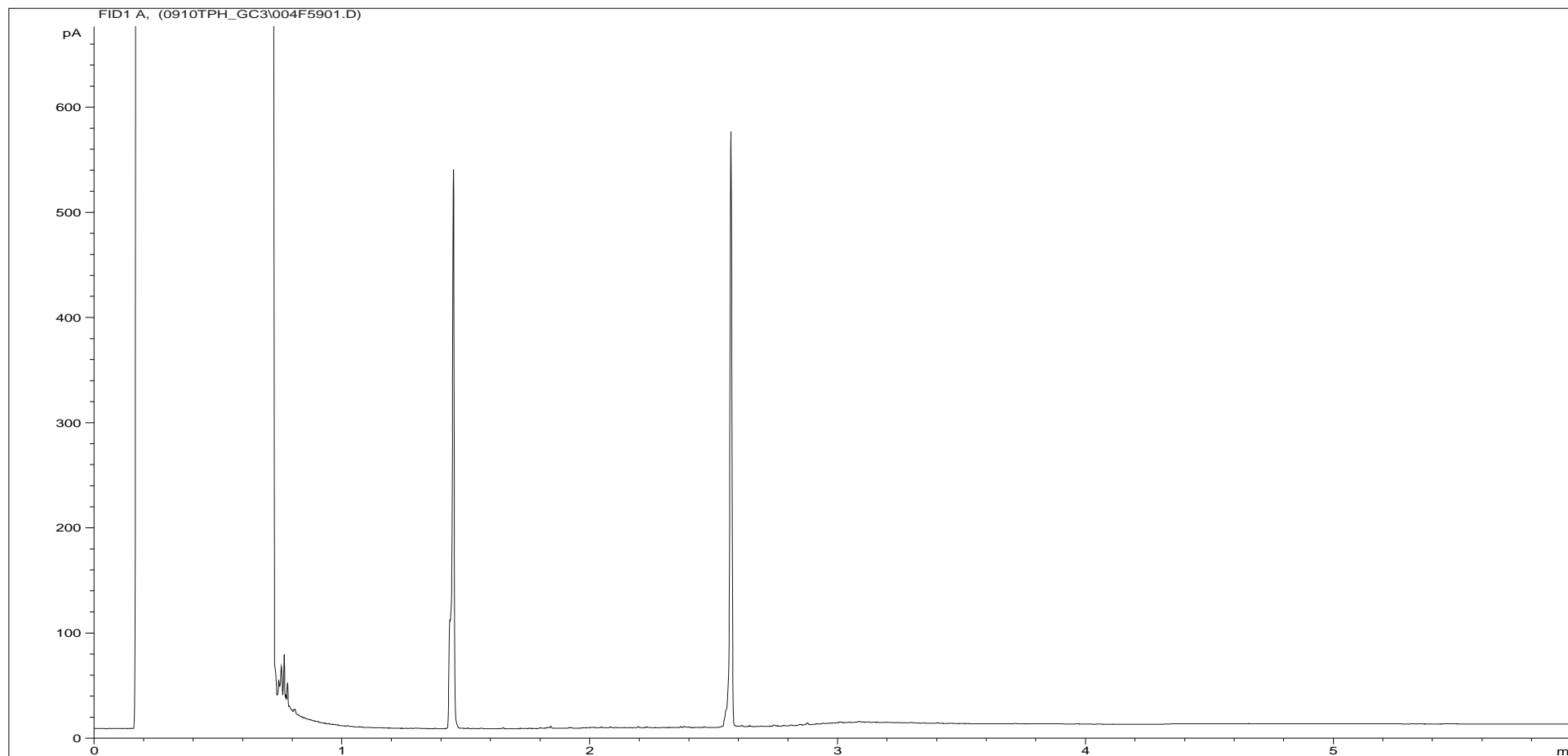
Sample ID:	CL0825416ARO	Job Number:	S08_5506M
Multiplier:	11.02	Client:	RPS Consultants
Dilution:	1	Site:	Awe Burghfield
Acquisition Method:	5UL_RUNF.M	Client Sample Ref:	HP8S-003 0.8
Acquisition Date/Time:	10-Sep-08		
Datafile:	D:\TES\DATA\Y2008\0910TPH_GC3\100B5901.D		

Where individual results are flagged see report notes for for status.

Results corrected to dry weight at 105°C where appr opriate, in accordance with the MCERTS standard.

EFS/085506M Ver. 3

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



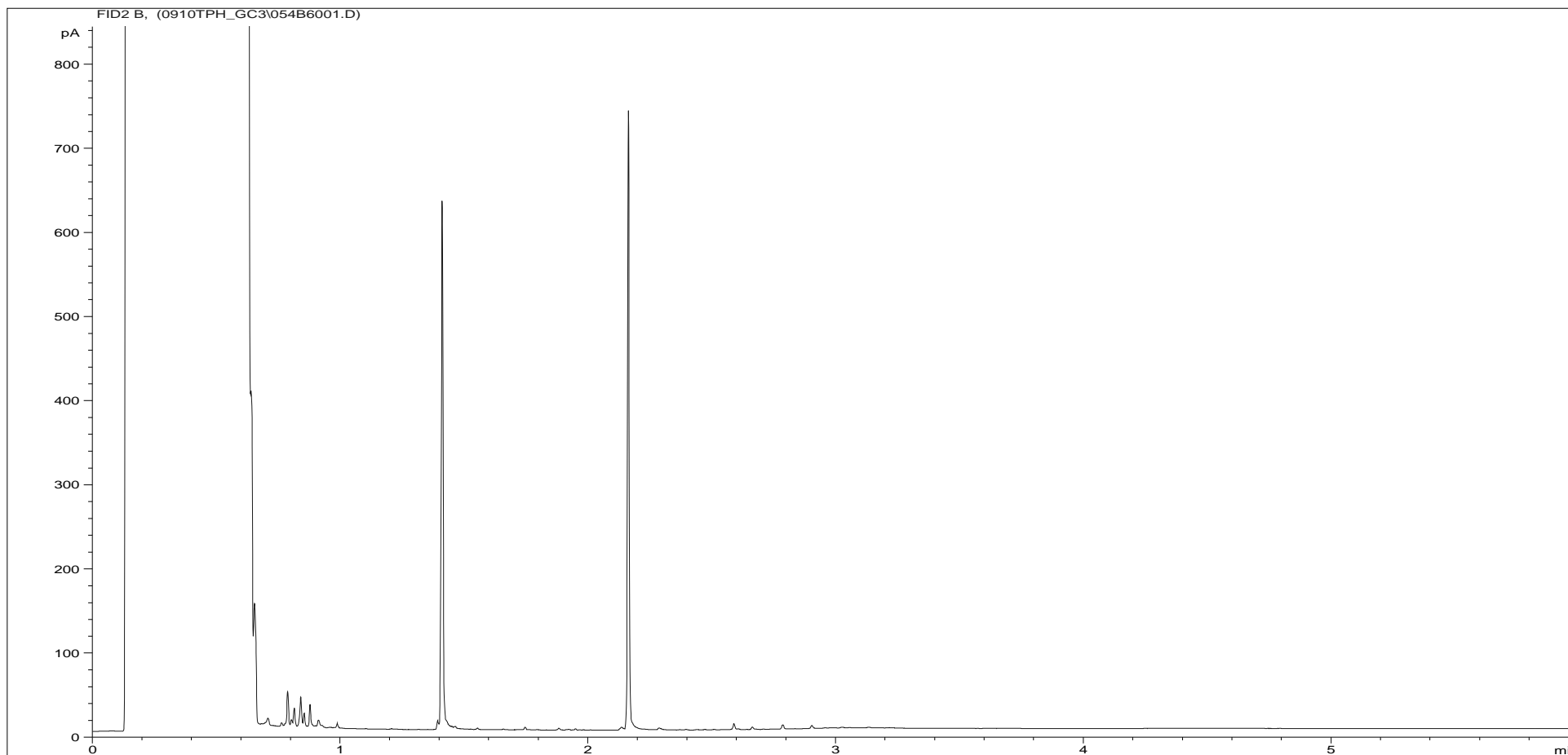
Sample ID:	CL0825417ALI	Job Number:	S08_5506M
Multiplier:	15.96	Client:	RPS Consultants
Dilution:	1	Site:	Awe Burghfield
Acquisition Method:	5UL_RUNF.M	Client Sample Ref:	HP8S-002 0.6
Acquisition Date/Time:	10-Sep-08		
Datafile:	D:\TES\DATA\Y2008\0910TPH_GC3\004F5901.D		

Where individual results are flagged see report notes for for status.

Results corrected to dry weight at 105°C where appropriate, in accordance with the MCERTS standard.

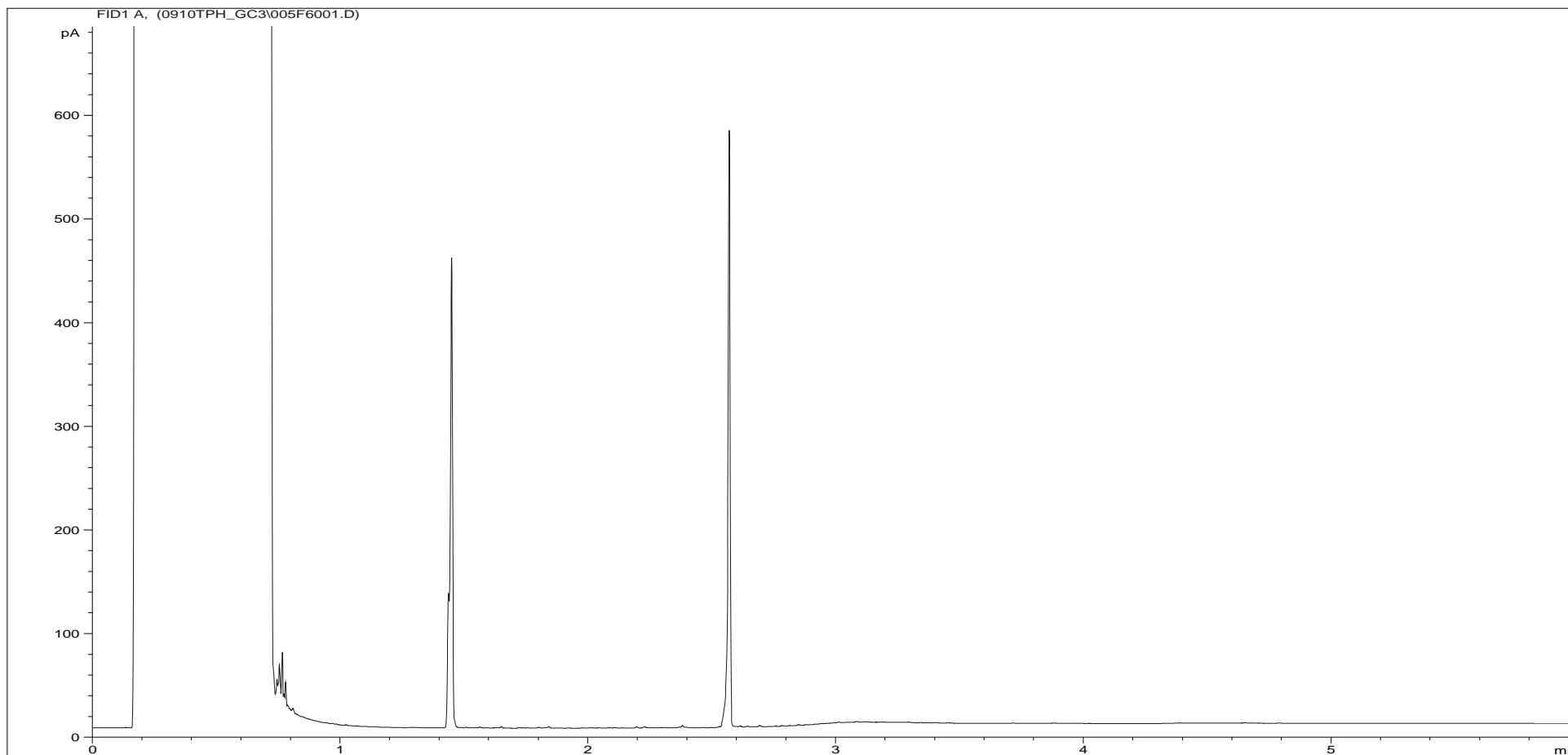
EFS/085506M Ver. 3

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



Sample ID:	CL0825417ARO	Job Number:	S08_5506M
Multiplier:	12.18	Client:	RPS Consultants
Dilution:	1	Site:	Awe Burghfield
Acquisition Method:	5UL_RUNF.M	Client Sample Ref:	HP8S-002 0.6
Acquisition Date/Time:	10-Sep-08		
Datafile:	D:\TES\DATA\Y2008\0910TPH_GC3\054B6001.D		

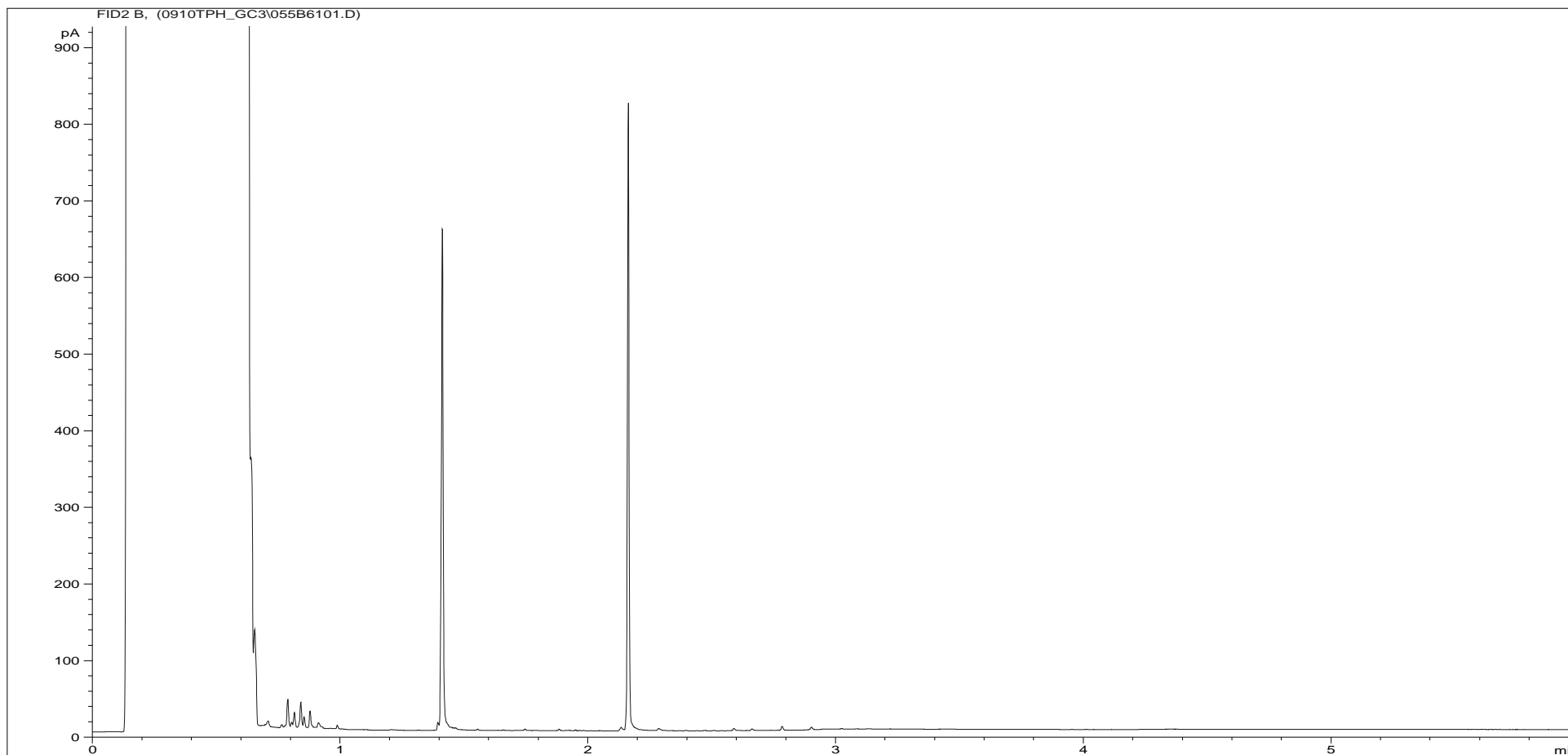
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



Sample ID:	CL0825418ALI	Job Number:	S08_5506M
Multiplier:	15.96	Client:	RPS Consultants
Dilution:	1	Site:	Awe Burghfield
Acquisition Method:	5UL_RUNF.M	Client Sample Ref:	TP8S-001 1.1
Acquisition Date/Time:	10-Sep-08		
Datafile:	D:\TES\DATA\Y2008\0910TPH_GC3\005F6001.D		

Where individual results are flagged see report notes for for status.

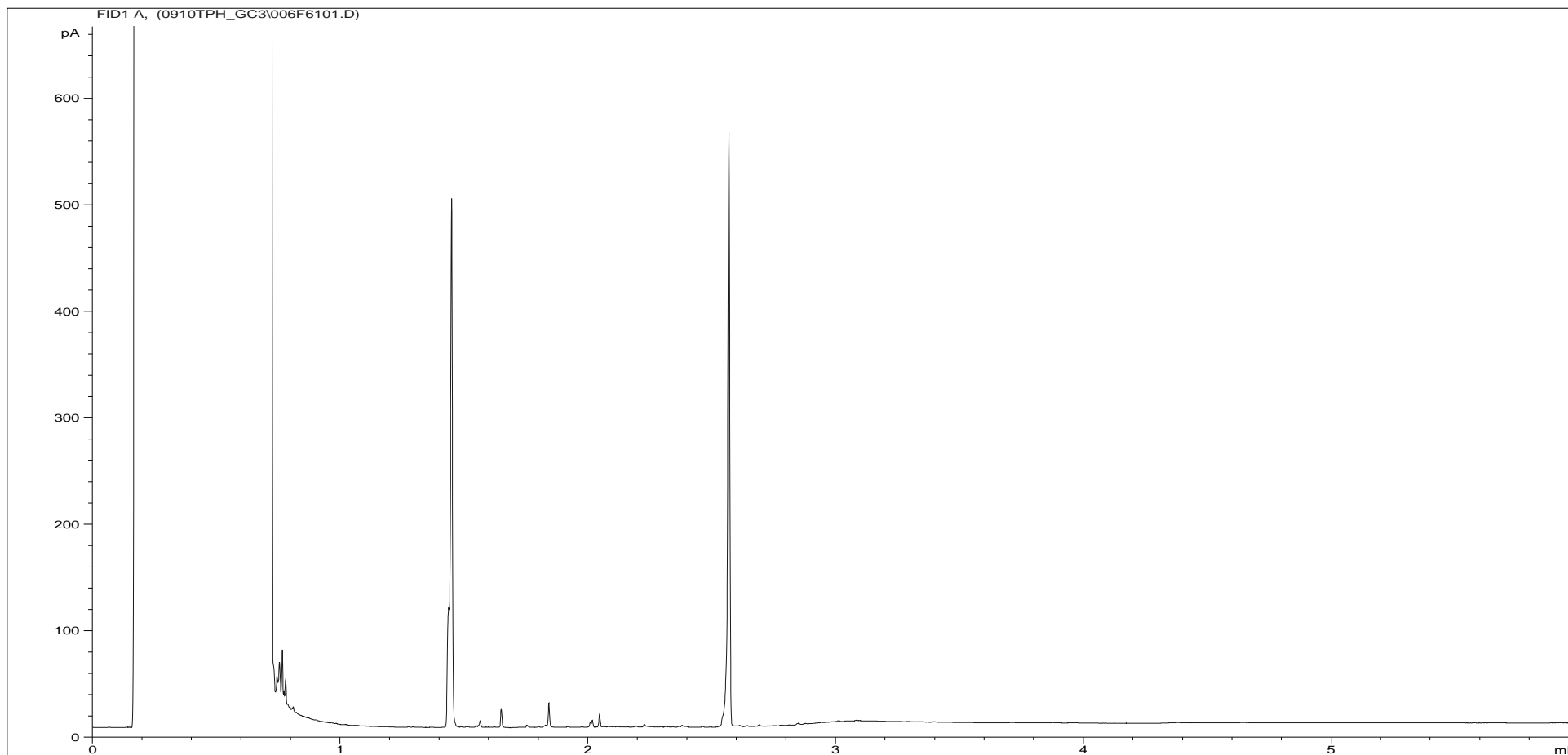
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



Sample ID:	CL0825418ARO	Job Number:	S08_5506M
Multiplier:	12.18	Client:	RPS Consultants
Dilution:	1	Site:	Awe Burghfield
Acquisition Method:	5UL_RUNF.M	Client Sample Ref:	TP8S-001 1.1
Acquisition Date/Time:	10-Sep-08		
Datafile:	D:\TES\DATA\Y2008\0910TPH_GC3\055B6101.D		

Where individual results are flagged see report notes for for status.

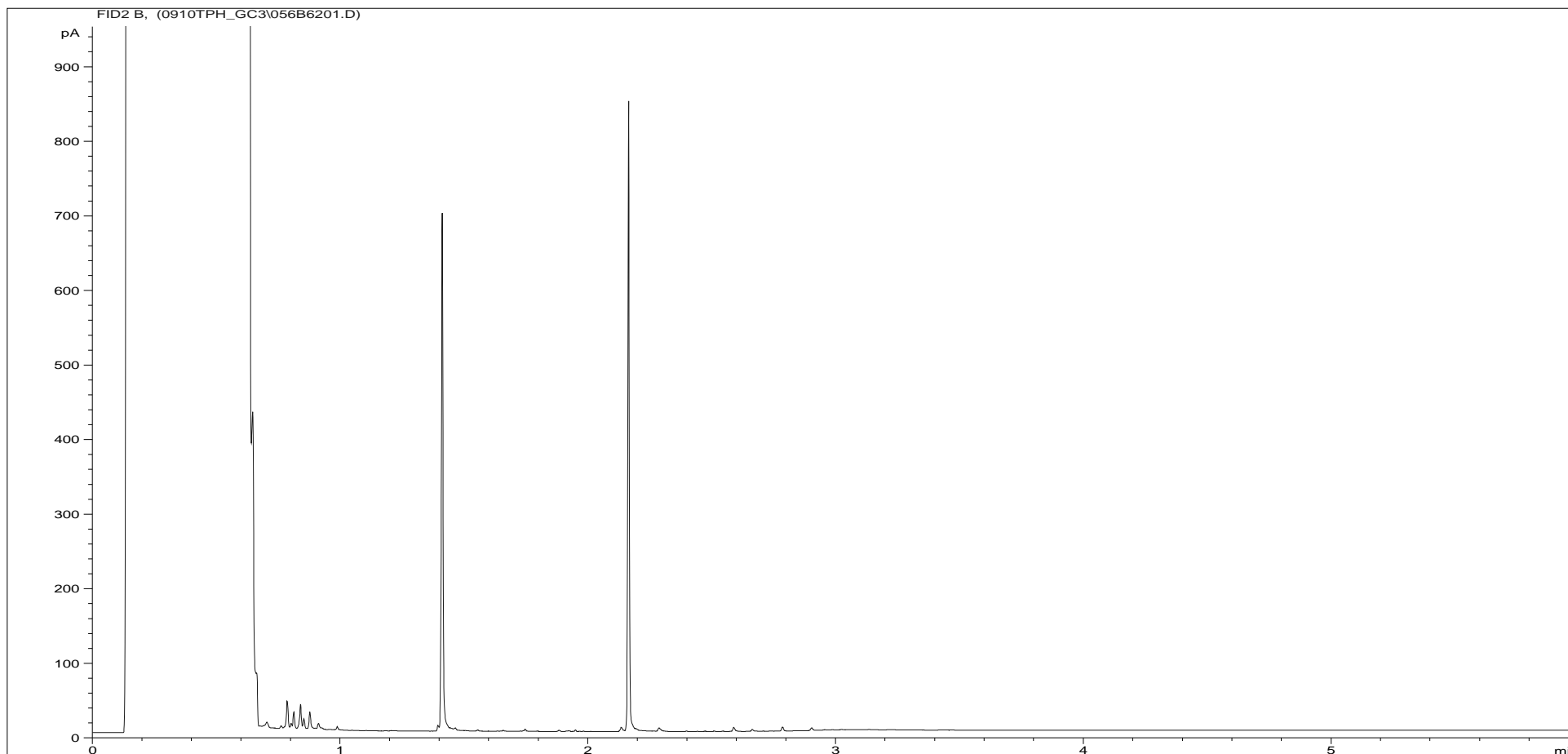
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



Sample ID:	CL0825419ALI	Job Number:	S08_5506M
Multiplier:	15.96	Client:	RPS Consultants
Dilution:	1	Site:	Awe Burghfield
Acquisition Method:	5UL_RUNF.M	Client Sample Ref:	TP8S-003 1.1
Acquisition Date/Time:	10-Sep-08		
Datafile:	D:\TES\DATA\Y2008\0910TPH_GC3\006F6101.D		

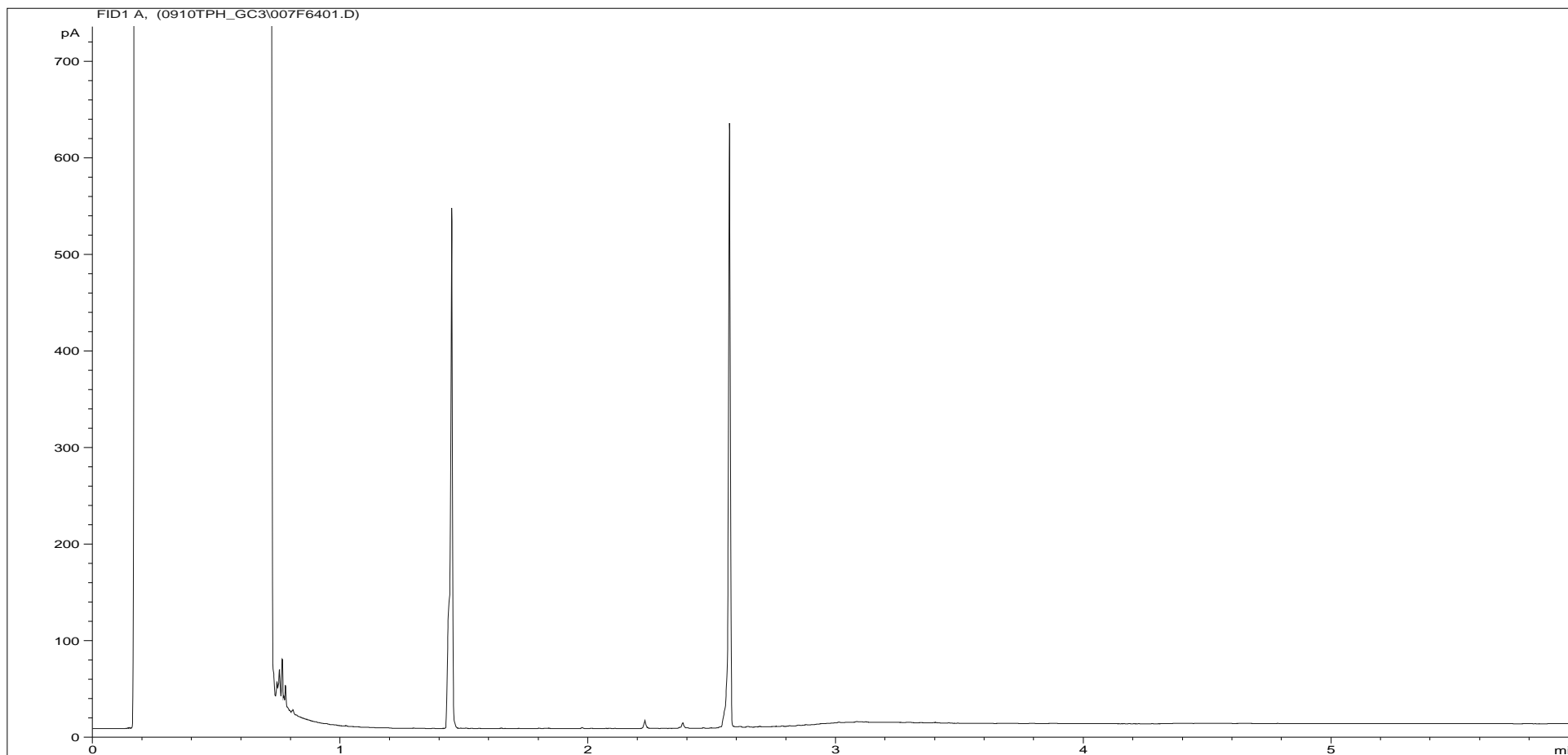
Where individual results are flagged see report notes for for status.

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



Sample ID:	CL0825419ARO	Job Number:	S08_5506M
Multiplier:	12.18	Client:	RPS Consultants
Dilution:	1	Site:	Awe Burghfield
Acquisition Method:	5UL_RUNF.M	Client Sample Ref:	TP8S-003 1.1
Acquisition Date/Time:	10-Sep-08		
Datafile:	D:\TES\DATA\Y2008\0910TPH_GC3\056B6201.D		

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



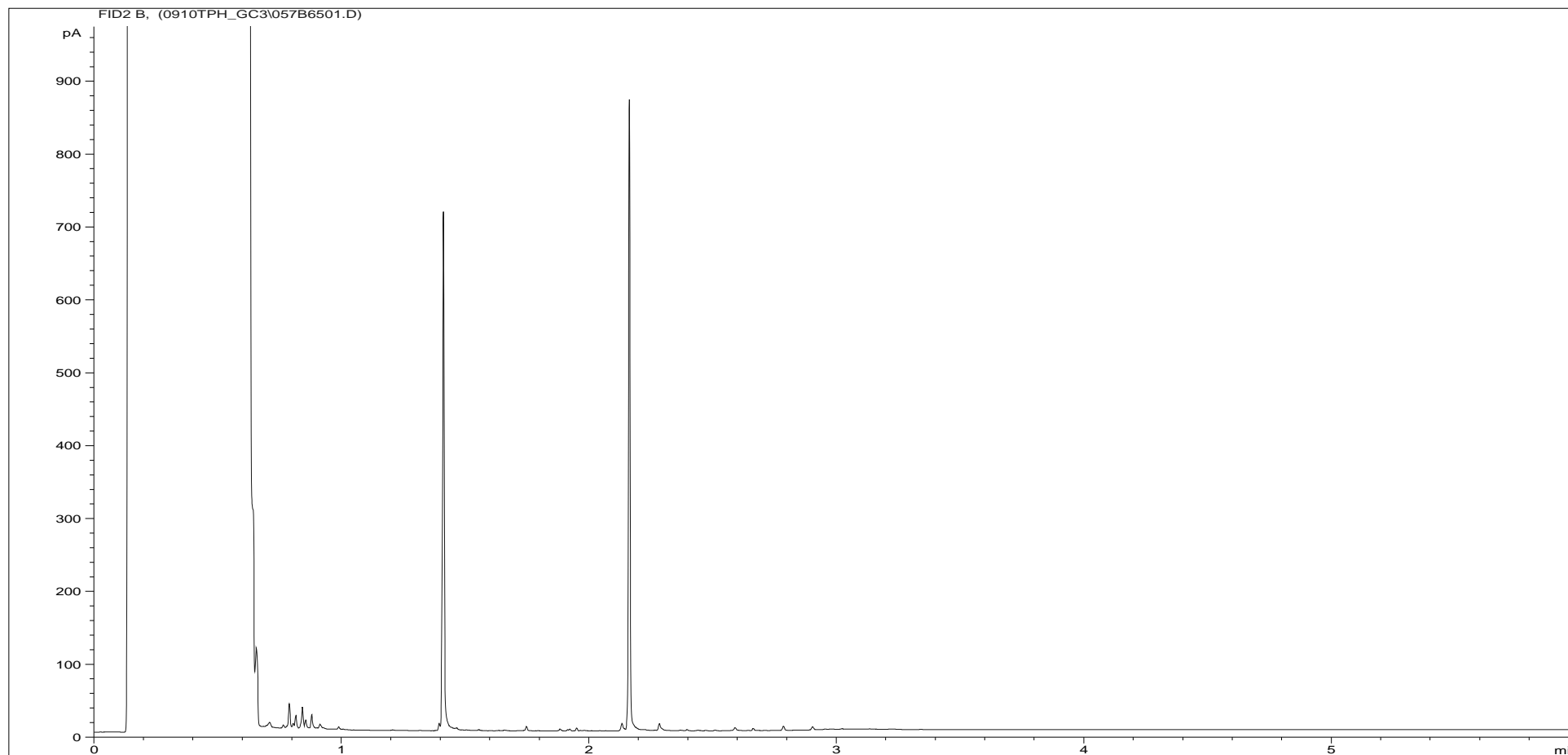
Sample ID:	CL0825420ALI	Job Number:	S08_5506M
Multiplier:	15.96	Client:	RPS Consultants
Dilution:	1	Site:	Awe Burghfield
Acquisition Method:	5UL_RUNF.M	Client Sample Ref:	TP8S-002 1.0
Acquisition Date/Time:	10-Sep-08		
Datafile:	D:\TES\DATA\Y2008\0910TPH_GC3\007F6401.D		

Where individual results are flagged see report notes for for status.

Results corrected to dry weight at 105°C where appropriate, in accordance with the MCERTS standard.

EFS/085506M Ver. 3

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



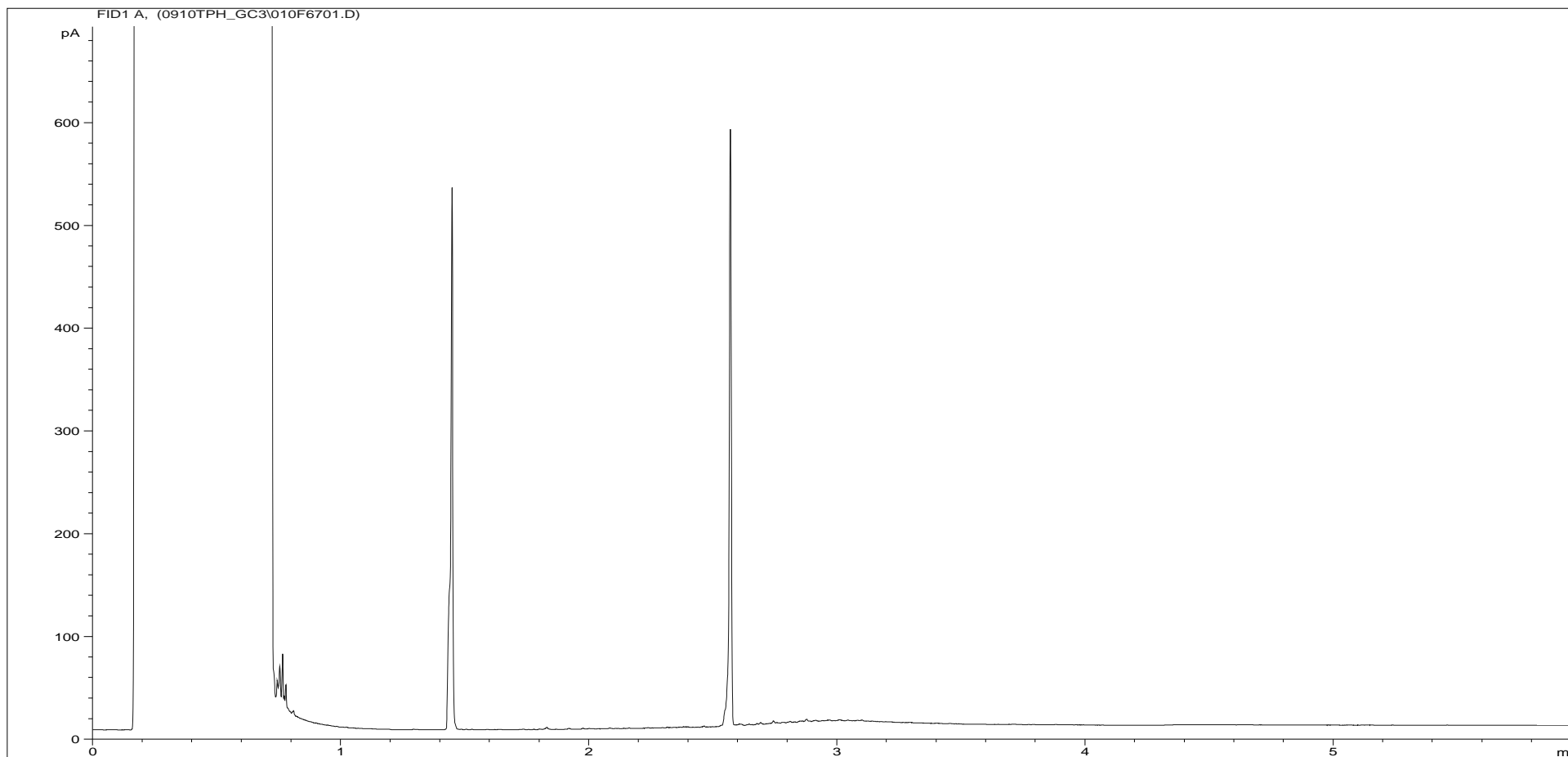
Sample ID:	CL0825420ARO	Job Number:	S08_5506M
Multiplier:	12.18	Client:	RPS Consultants
Dilution:	1	Site:	Awe Burghfield
Acquisition Method:	5UL_RUNF.M	Client Sample Ref:	TP8S-002 1.0
Acquisition Date/Time:	10-Sep-08		
Datafile:	D:\TES\DATA\Y2008\0910TPH_GC3\057B6501.D		

Where individual results are flagged see report notes for for status.

Results corrected to dry weight at 105°C where appropriate, in accordance with the MCERTS standard.

EFS/085506M Ver. 3

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.

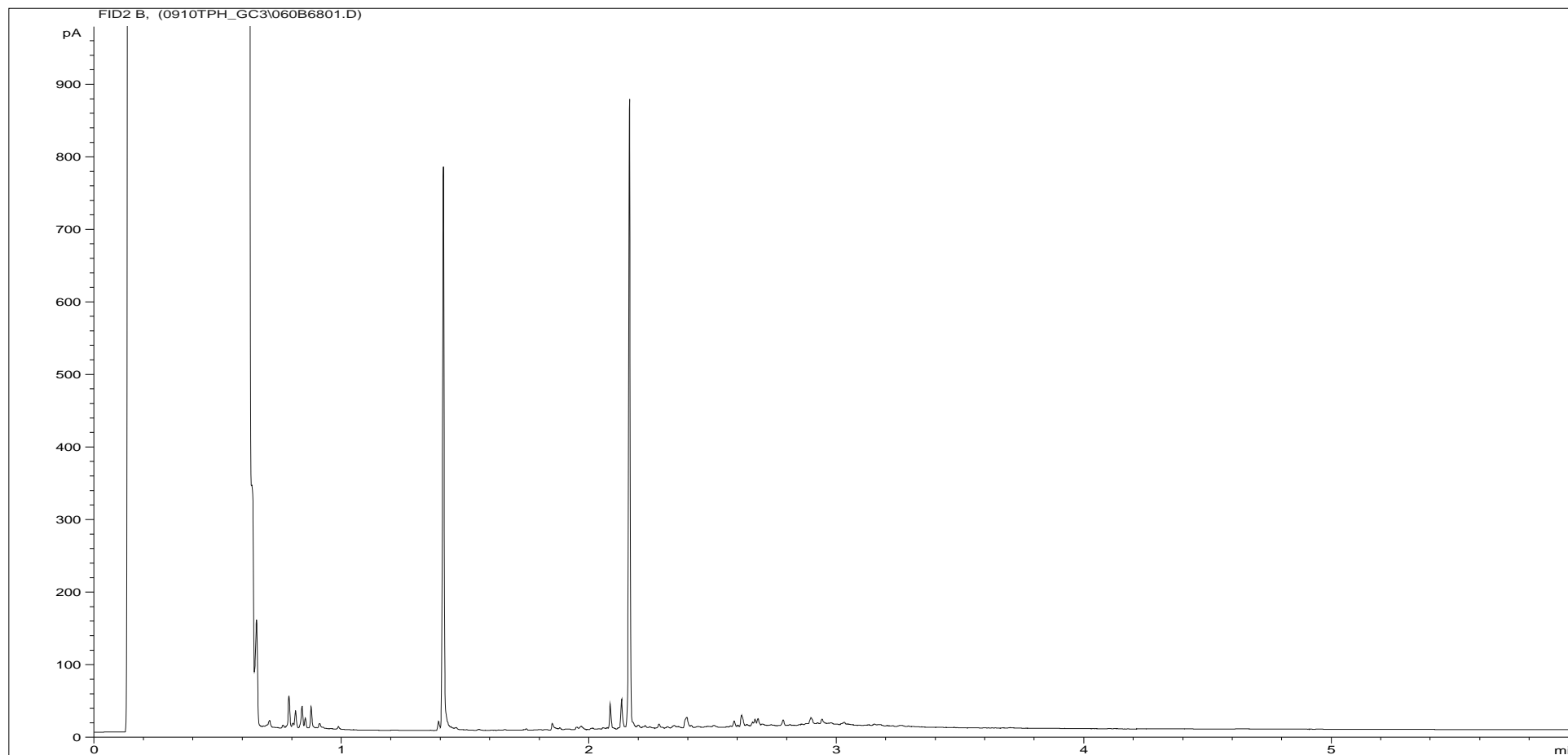


Sample ID:	CL0825423ALI	Job Number:	S08_5506M
Multiplier:	15.96	Client:	RPS Consultants
Dilution:	1	Site:	Awe Burghfield
Acquisition Method:	5UL_RUNF.M	Client Sample Ref:	TP8F-015 0.3-0.6
Acquisition Date/Time:	10-Sep-08		
Datafile:	D:\TES\DATA\Y2008\0910TPH_GC3\010F6701.D		

Where individual results are flagged see report notes for for status.

Results corrected to dry weight at 105°C where appropriate, in accordance with the MCERTS standard.

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



Sample ID:	CL0825423ARO	Job Number:	S08_5506M
Multiplier:	12.18	Client:	RPS Consultants
Dilution:	1	Site:	Awe Burghfield
Acquisition Method:	5UL_RUNF.M	Client Sample Ref:	TP8F-015 0.3-0.6
Acquisition Date/Time:	11-Sep-08		
Datafile:	D:\TES\DATA\Y2008\0910TPH_GC3\060B6801.D		

Where individual results are flagged see report notes for for status.

Report Notes

Soil/Solid analysis specific:

S04 analysis not conducted in accordance with BS1377 unless otherwise stated
Water Soluble Sulphate on 2:1 water:soil extract
AR denotes analysis conducted on the As Received sample

Water analysis specific:

Results expressed as mg/l unless stated otherwise

Oil analysis specific:

Results expressed as mg/kg unless stated otherwise
S.G. expressed as g/cm³ @ 15°C

Filter analysis specific:

Results expressed as mg on filter unless stated otherwise

VOC analysis specific:

Explanatory notes for data flagging
U = undetected above reporting limit
J = concentration at instrument was below lowest calibration standard
E = concentration at instrument was above top calibration standard
B = compound was detected in method blank

Gas (Tedlar bag) analysis specific:

Results expressed as ug/l unless stated otherwise

Air (Carbon tube) analysis specific:

Results expressed as ug on tube unless stated otherwise

Asbestos analysis specific:

CH denotes Chrysotile
CR denotes Crocidolite
AM denotes Amosite
NADIS denotes No Asbestos Detected in Sample
NBFO denotes No Bulk fibres Observed

General notes:

^ this analysis was subcontracted to another laboratory
\$ Within laboratory tolerances
\$\$ unable to analyse due to nature of sample
¥ Results for guidance only, possible interference
& Blank corrected
I.S insufficient sample for analysis
Intf Unable to analyse due to interferences
N.D Not determined
N.R Not recorded
N.Det Not detected
Req Analysis Requested, see attached sheets for results
p Raised detection limit due to nature of sample
***** denotes that all accreditation has been removed by the laboratory for this result.
‡ denotes that Mcerts accreditation has been removed by the laboratory for this result.
Note: The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected.

If you require further details of the circumstances leading to the removal of the accreditation from any data item please do not hesitate to contact the laboratory

END OF REPORT

TES Report No. EFS/085645M (Ver. 1)

RPS Consultants
St. Anne's House
Oxford Square
Oxford Street
Newbury
Berkshire
RGH 13Q

Site: AWE Burghfield

The 2 samples described in this report were logged for analysis by TES Bretby on 03-Sep-2008.
The analysis was completed by: 22-Sep-2008

Tests where the accreditation is set to N or No, and any individual data items marked with a * are not UKAS or MCERTS accredited
Any opinions or interpretations expressed herein are outside the scope of any UKAS accreditation held by TES Bretby Laboratories.

The following tables are contained in this report:

Table 1 Main Analysis Results (Pages 2 to 3)
Table of PAH (MS-SIM) (80) Results (Pages 4 to 6)
Table of TPH (Si) banding (std) (Page 7)
GC-FID Chromatograms (Pages 8 to 13)
Table of VOC Results (Pages 14 to 17)
Table of VOC (Tics) Results (Pages 18 to 21)
Table of Report Notes (Page 22)

On behalf of
TES Bretby :
J Hannah

J. Hannah
Project Co-ordinator

Date of Issue: 22-Sep-2008

Accreditation Codes: **N** (Not Accredited), **U** (UKAS), **UM** (UKAS & MCERTS)


Tests marked 'A' have been subcontracted to another laboratory.

(NVM) - denotes the sample matrix is dissimilar to matrices upon which the MCERTS validation was based,
and is therefore not accredited for MCERTS.

All results are reported on a dry weight basis at 105°C unless otherwise stated. (except QC samples)
TES Bretby accepts no responsibility for any sampling not carried out by our personnel.

		Units :	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	%	mg/kg	ug/kg	pH Units		
		Method Codes :	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	ICPMSS	TMSS	TPHUSSI	VOCSW8100	WSLM3		
		Method Reporting Limits :	2	0.1	3	3	3.5	0.10	2.5	0.5	2.0	19.5	0.2	10.0	5		
		Accreditation Code:	UM	U	UM	UM	UM	U	UM	U	U	UM	U		U		
TES ID Number	Client Sample Description	Arсенic (MS)	Cadmium (MS)	Chromium (MS)	Copper (MS)	Lead (MS)	Mercury (MS)	Nickel (MS)	Selenium (MS)	Vanadium (MS)	Zinc (MS)	Tot. Moisture @ 105C	TPH by GCFD (AR/SI)	VOC + TICs (8/100)	pH units		
0825906	HP8S-001 0.5-1.0	7.3	0.15	23.4‡	14.4	16.1	<0.1	22.7	0.5	34.5	54.4	24.1	Req		7.3		
0825907	BH8F-001 1.0-1.5	9.1	0.26	25‡	15.8	17.5	<0.1	27.2	0.8	36.7	55.5	26.0	Req		8.2		
TES Bretby PO Box 100, Bretby Business Park, Burton-on-Trent, Staffordshire, DE15 0XD Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422		Client Name		RPS Consultants										Soils Sample Analysis			
		Contact		Mr G Moore													
		AWE Burghfield										Date Printed		22-Sep-08			
										Report Number		EFS/085645M					
										Table Number		1					



		Units :	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg		% M/M										
		Method Codes :	ICPBOR	ICPMAJ	ICPMAJ	KONECL	PAHMSUS	SEN9	WSLM59										
		Method Reporting Limits :	0.5	1	1	5.0	0.08		0.02										
		Accreditation Code:	N	N	N	N		N	N										
TES ID Number	Client Sample Description	Boron (H2O Soluble)	Barium	Beryllium	Chloride:	PAH by MS:17(0.08)	Asbestos (screening)	F.O.C. %											
0825906	HP8S-001 0.5-1.0	0.7	<1	<1	30	Req	NBFO	0.57											
0825907	BH8F-001 1.0-1.5	<0.5	<1	<1	243	Req	NBFO	0.43											
TES Bretby PO Box 100, Bretby Business Park, Burton-on-Trent, Staffordshire, DE15 0XD Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422		Client Name	RPS Consultants					Soils Sample Analysis											
		Contact	Mr G Moore					Date Printed	22-Sep-08										
		AWE Burghfield							Report Number	EFS/085645M									
									Table Number	1									

Polycyclic Aromatic Hydrocarbons GC/MS (SIM)

Customer and Site Details: RPS Consultants: JER 3996-AWE MENSA
Sample Details: HP8S-001 0.5-1.0 **Job Number:** S08_5645M
LIMS ID Number: CL0825906 **Date Booked in:** 03-Sep-08
QC Batch Number: 3177 **Date Extracted:** 05-Sep-08
Quantitation File: Initial Calibration **Date Analysed:** 17-Sep-08
Directory: 915PAH_MS14\ **Matrix:** Soil
Dilution: 1.0 **Ext Method:** Ultrasonic

Accredited?: Yes

Target Compounds	CAS #	R.T. (min)	Concentration mg/kg	% Fit	Accr. code
Naphthalene	91-20-3	-	< 0.11	-	UM
Acenaphthylene	208-96-8	-	< 0.11	-	U
Acenaphthene	83-32-9	-	< 0.11	-	UM
Fluorene	86-73-7	-	< 0.11	-	UM
Phenanthrene	85-01-8	-	< 0.11	-	UM
Anthracene	120-12-7	-	< 0.11	-	U
Fluoranthene	206-44-0	-	< 0.11	-	UM
Pyrene	129-00-0	-	< 0.11	-	UM
Benzo[a]anthracene	56-55-3	-	< 0.11	-	UM
Chrysene	218-01-9	-	< 0.11	-	UM
Benzo[b]fluoranthene	205-99-2	-	< 0.11	-	UM
Benzo[k]fluoranthene	207-08-9	-	< 0.11	-	UM
Benzo[a]pyrene	50-32-8	-	< 0.11	-	UM
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.11	-	UM
Dibenzo[a,h]anthracene	53-70-3	-	< 0.11	-	UM
Benzo[g,h,i]perylene	191-24-2	-	< 0.11	-	UM
Coronene	191-07-1 *	-	< 0.11	-	N
Total (USEPA16) PAHs	-	-	< 1.69	-	N

* Denotes compound is not UKAS accredited

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	73
Acenaphthene-d10	73
Phenanthrene-d10	76
Chrysene-d12	83
Perylene-d12	75

Surrogates	% Rec
Nitrobenzene-d5	N.D
2-Fluorobiphenyl	96
Terphenyl-d14	104

Concentrations are reported on a dry weight basis.

The Total PAH result is the sum of non-rounded individual PAH results and therefore may differ to the sum of the rounded individual PAH results printed above. By convention, where any one or more result is a "less than", the total is expressed as a "less than" and includes the "less than" concentration within the total.

Polycyclic Aromatic Hydrocarbons GC/MS (SIM)

Customer and Site Details: RPS Consultants: JER 3996-AWE MENSA
Sample Details: BH8F-001 1.0-1.5 **Job Number:** S08_5645M
LIMS ID Number: CL0825907 **Date Booked in:** 03-Sep-08
QC Batch Number: 3177 **Date Extracted:** 05-Sep-08
Quantitation File: Initial Calibration **Date Analysed:** 17-Sep-08
Directory: 915PAH_MS14\ **Matrix:** Soil
Dilution: 1.0 **Ext Method:** Ultrasonic

Accredited?: Yes

Target Compounds	CAS #	R.T. (min)	Concentration mg/kg	% Fit	Accr. code
Naphthalene	91-20-3	-	< 0.11	-	UM
Acenaphthylene	208-96-8	-	< 0.11	-	U
Acenaphthene	83-32-9	-	< 0.11	-	UM
Fluorene	86-73-7	-	< 0.11	-	UM
Phenanthrene	85-01-8	-	< 0.11	-	UM
Anthracene	120-12-7	-	< 0.11	-	U
Fluoranthene	206-44-0	-	< 0.11	-	UM
Pyrene	129-00-0	-	< 0.11	-	UM
Benzo[a]anthracene	56-55-3	-	< 0.11	-	UM
Chrysene	218-01-9	-	< 0.11	-	UM
Benzo[b]fluoranthene	205-99-2	-	< 0.11	-	UM
Benzo[k]fluoranthene	207-08-9	-	< 0.11	-	UM
Benzo[a]pyrene	50-32-8	-	< 0.11	-	UM
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.11	-	UM
Dibenzo[a,h]anthracene	53-70-3	-	< 0.11	-	UM
Benzo[g,h,i]perylene	191-24-2	-	< 0.11	-	UM
Coronene	191-07-1 *	-	< 0.11	-	N
Total (USEPA16) PAHs	-	-	< 1.73	-	N

* Denotes compound is not UKAS accredited

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	75
Acenaphthene-d10	75
Phenanthrene-d10	77
Chrysene-d12	84
Perylene-d12	77

Surrogates	% Rec
Nitrobenzene-d5	N.D
2-Fluorobiphenyl	93
Terphenyl-d14	101

Concentrations are reported on a dry weight basis.

The Total PAH result is the sum of non-rounded individual PAH results and therefore may differ to the sum of the rounded individual PAH results printed above. By convention, where any one or more result is a "less than", the total is expressed as a "less than" and includes the "less than" concentration within the total.

ALIPHATIC / AROMATIC FRACTION BY GC/FID

Customer and Site Details: RPS Consultants : JER 3996-AWE MENSA
Job Number: S08_5645
QC Batch Number: 83177
Directory: D:\TES\DATA\Y2008\0908PH_GC4\082B9101.D
Method: Ultra Sonic

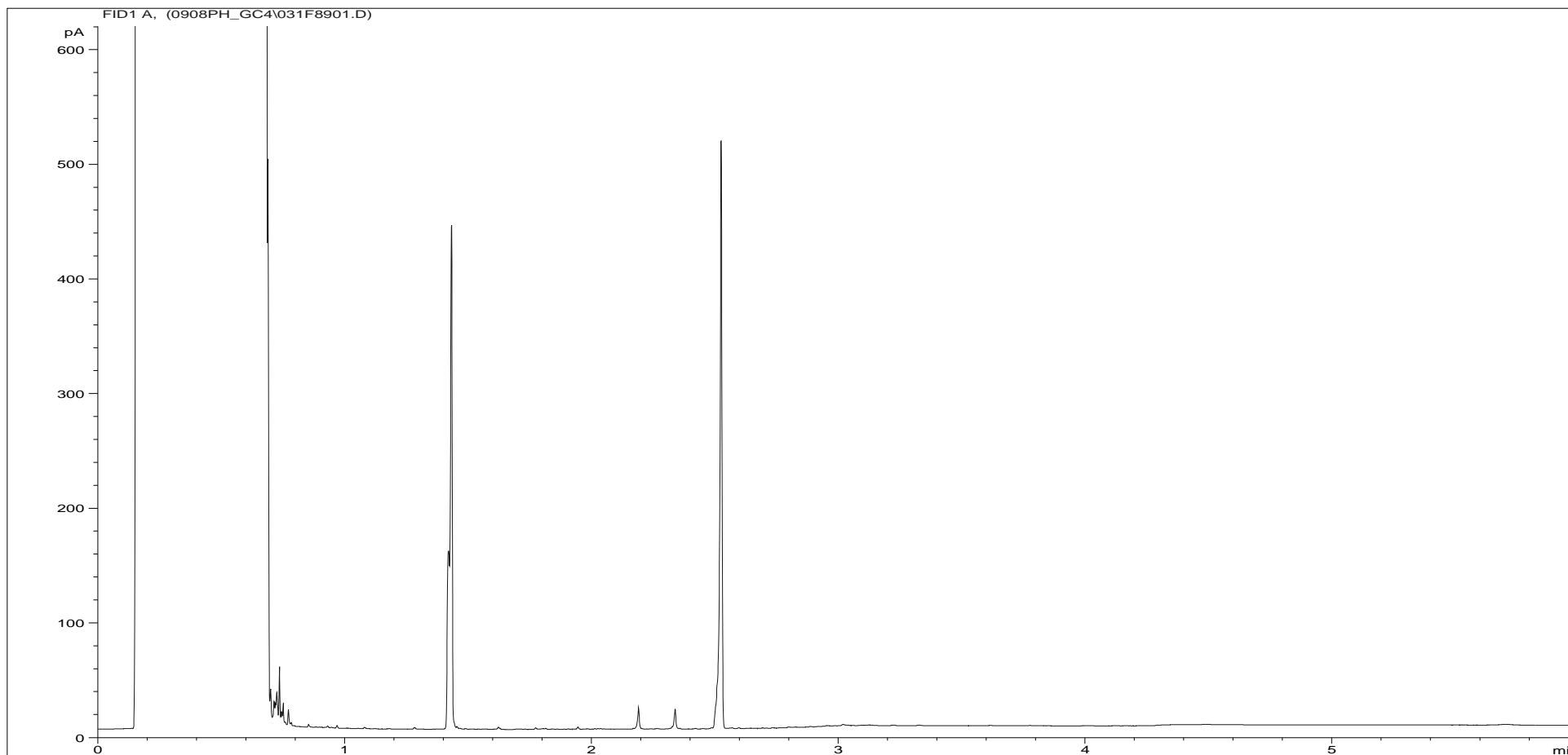
Separation: Silica gel
Eluents: Hexane, DCM

Matrix: Soil
Date Booked in: 03-Sep-08
Date Extracted: 05-Sep-08
Date Analysed: 09-Sep-08

		Concentration, (mg/kg) - as dry weight.									
		>C8 - C10		>C10 - C12		>C12 - C16		>C16 - C21		>C21 - C35	
Sample ID	Client ID	Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics	Aliphatics	Aromatics
* CL0825906	HP8S-001 0.5-1.0	<5	<5	<5	<5	<5	<5	<5	<5	<11.54	<11.54
*											
*											

This sample data is not accredited.

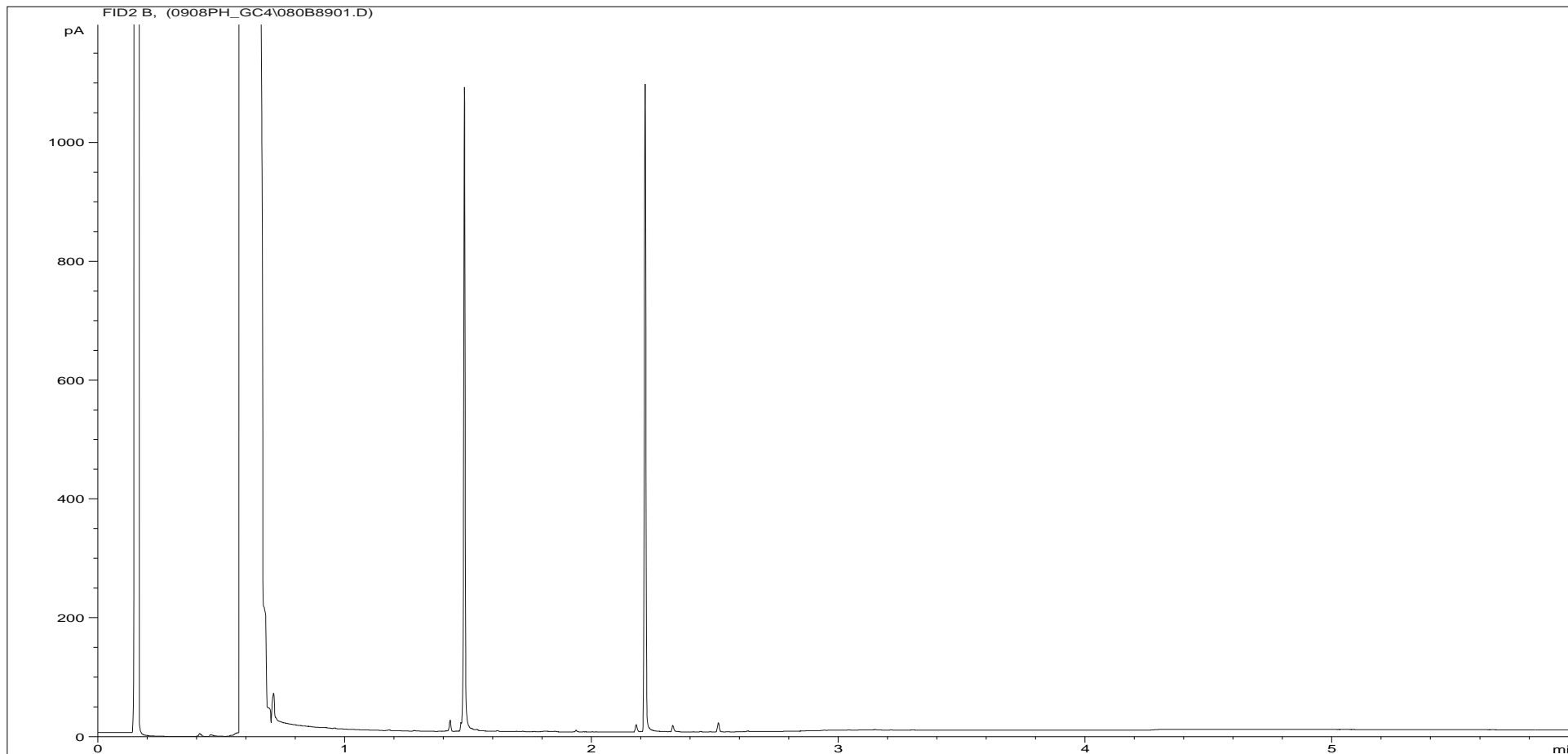
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.



Sample ID:	CL0825906ALI	Job Number:	S08_5645M
Multiplier:	15.2	Client:	RPS Consultants
Dilution:	1	Site:	JER 3996-AWE MENSA
Acquisition Method:	5UL_RUNF.M	Client Sample Ref:	HP8S-001 0.5-1.0
Acquisition Date/Time:	09-Sep-08		
Datafile:	D:\TES\DATA\Y2008\0908PH_GC4\031F8901.D		

Where individual results are flagged see report notes for for status.

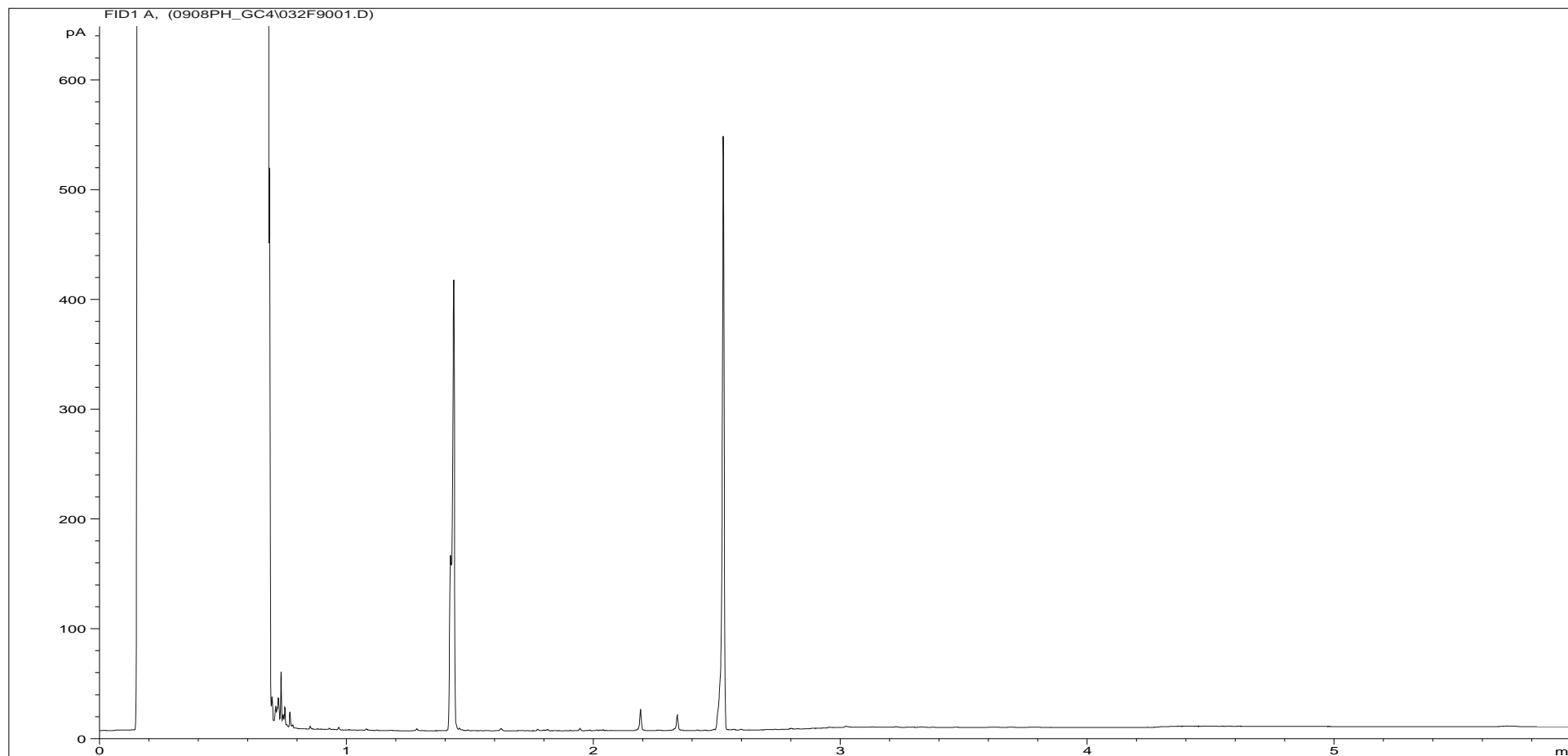
Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



Sample ID:	CL0825906ARO	Job Number:	S08_5645M
Multiplier:	11.4	Client:	RPS Consultants
Dilution:	1	Site:	JER 3996-AWE MENSA
Acquisition Method:	5UL_RUNF.M	Client Sample Ref:	HP8S-001 0.5-1.0
Acquisition Date/Time:	09-Sep-08		
Datafile:	D:\TES\DATA\Y2008\0908PH_GC4\080B8901.D		

Where individual results are flagged see report notes for for status.

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aliphatics Fraction.

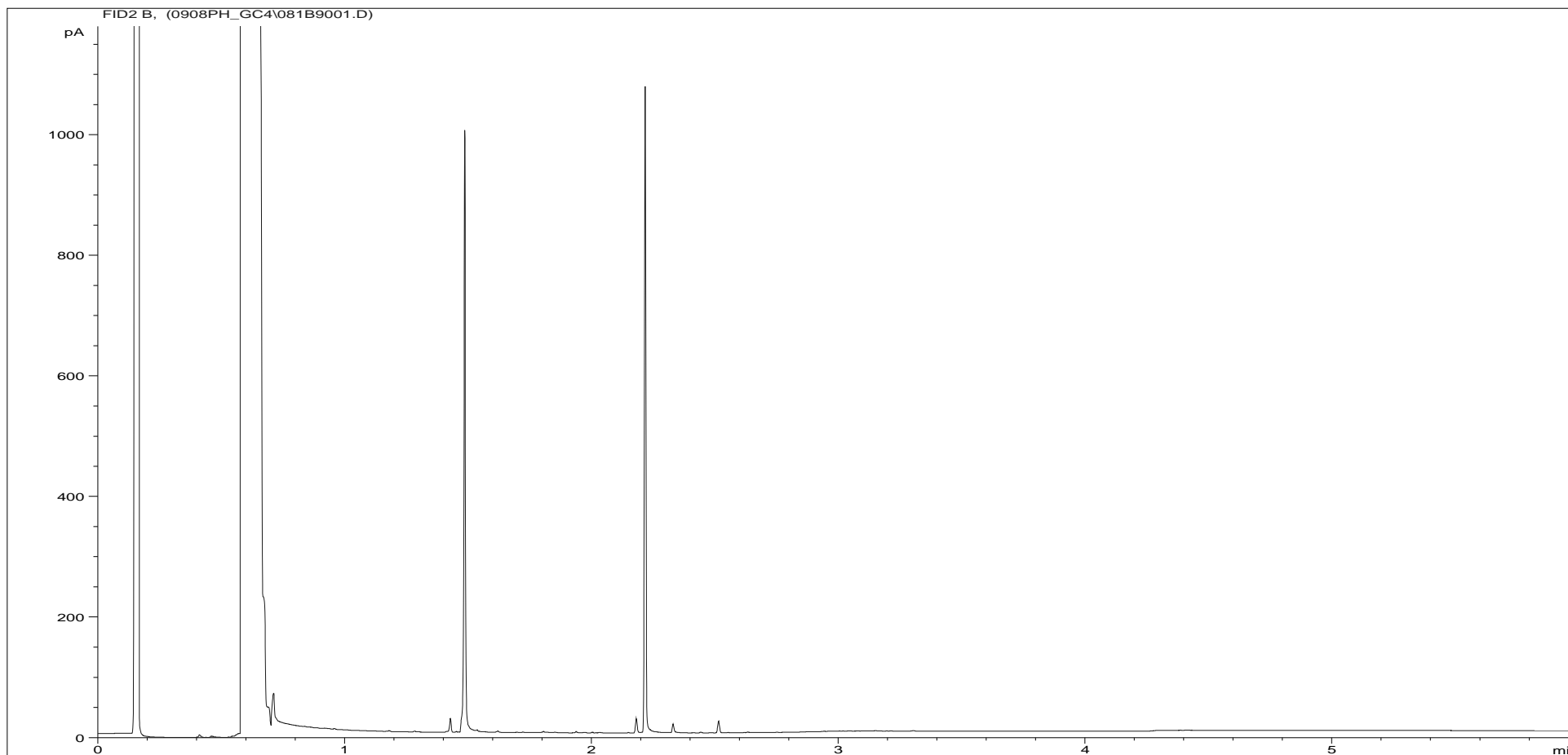


Sample ID:	CL0825907ALI	Job Number:	S08_5645M
Multiplier:	16.8	Client:	RPS Consultants
Dilution:	1	Site:	JER 3996-AWE MENSA
Acquisition Method:	5UL_RUNF.M	Client Sample Ref:	BH8F-001 1.0-1.5
Acquisition Date/Time:	09-Sep-08		
Datafile:	D:\TES\DATA\Y2008\0908PH_GC4\032F9001.D		

Where individual results are flagged see report notes for for status.

Results corrected to dry weight at 105°C where appropriate, in accordance with the MCERTS standard.

Petroleum Hydrocarbons (C8 to C40) by GC/FID Aromatics Fraction.



Sample ID:	CL0825907ARO	Job Number:	S08_5645M
Multiplier:	12.6	Client:	RPS Consultants
Dilution:	1	Site:	JER 3996-AWE MENSA
Acquisition Method:	5UL_RUNF.M	Client Sample Ref:	BH8F-001 1.0-1.5
Acquisition Date/Time:	09-Sep-08		
Datafile:	D:\TES\DATA\Y2008\0908PH_GC4\081B9001.D		

Where individual results are flagged see report notes for for status.

Report Notes

Soil/Solid analysis specific:

S04 analysis not conducted in accordance with BS1377 unless otherwise stated
Water Soluble Sulphate on 2:1 water:soil extract
AR denotes analysis conducted on the As Received sample

Water analysis specific:

Results expressed as mg/l unless stated otherwise

Oil analysis specific:

Results expressed as mg/kg unless stated otherwise
S.G. expressed as g/cm³ @ 15°C

Filter analysis specific:

Results expressed as mg on filter unless stated otherwise

VOC analysis specific:

Explanatory notes for data flagging
U = undetected above reporting limit
J = concentration at instrument was below lowest calibration standard
E = concentration at instrument was above top calibration standard
B = compound was detected in method blank

Gas (Tedlar bag) analysis specific:

Results expressed as ug/l unless stated otherwise

Air (Carbon tube) analysis specific:

Results expressed as ug on tube unless stated otherwise

Asbestos analysis specific:

CH denotes Chrysotile
CR denotes Crocidolite
AM denotes Amosite
NADIS denotes No Asbestos Detected in Sample
NBFO denotes No Bulk fibres Observed

General notes:

^ this analysis was subcontracted to another laboratory
\$ Within laboratory tolerances
\$\$ unable to analyse due to nature of sample
¥ Results for guidance only, possible interference
& Blank corrected
I.S insufficient sample for analysis
Intf Unable to analyse due to interferences
N.D Not determined
N.R Not recorded
N.Det Not detected
Req Analysis Requested, see attached sheets for results
b Raised detection limit due to nature of sample
***** denotes that all accreditation has been removed by the laboratory for this result.
‡ denotes that Mcerts accreditation has been removed by the laboratory for this result.
Note: The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected.

If you require further details of the circumstances leading to the removal of the accreditation from any data item please do not hesitate to contact the laboratory

END OF REPORT



TEST REPORT

LEACHATE SAMPLE ANALYSIS



TES Report No. EXR/088255 (Ver. 1)

RPS Consultants
Park House
Greyfriars Road
Cardiff
CF10 3AF

Site: AWE Burghfield

The 1 sample described in this report were logged for analysis by TES Bretby on 22-Sep-2008.
The analysis was completed by: 03-Oct-2008

Tests where the accreditation is set to N or No, and any individual data items marked with a * are not UKAS accredited
Any opinions or interpretations expressed herein are outside the scope of any UKAS accreditation held by TES Bretby Laboratories.

The following tables are contained in this report:

Table 1 Main Analysis Results (Page 2)
Table of Report Notes (Page 3)

On behalf of
TES Bretby :
J Elstub


Project Co-ordinator

Date of Issue: 03-Oct-2008

Tests marked '^' have been subcontracted to another laboratory.

TES Bretby accepts no responsibility for any sampling not carried out by our personnel.

Where individual results are flagged see report notes for for status.

Report Notes

Soil/Solid analysis specific:

Results expressed as mg/kg on an air dried basis unless stated otherwise
S04 analysis not conducted in accordance with BS1377 unless otherwise stated
Water Soluble Sulphate on 2:1 water:soil extract
AR denotes analysis conducted on the As Received sample

Water analysis specific:

Results expressed as mg/l unless stated otherwise

Oil analysis specific:

Results expressed as mg/kg unless stated otherwise
S.G. expressed as g/cm³ @ 15°C

Filter analysis specific:

Results expressed as mg on filter unless stated otherwise

VOC analysis specific:

Explanatory notes for data flagging
U = undetected above reporting limit
J = concentration at instrument was below lowest calibration standard
E = concentration at instrument was above top calibration standard
B = compound was detected in method blank

Gas (Tedlar bag) analysis specific:

Results expressed as ug/l unless stated otherwise

Air (Carbon tube) analysis specific:

Results expressed as ug on tube unless stated otherwise

Asbestos analysis specific:

CH denotes Chrysotile
CR denotes Crocidolite
AM denotes Amosite
NADIS denotes No Asbestos Detected in Sample
NBFO denotes No Bulk fibres Observed

General notes:

^ this analysis was subcontracted to another laboratory
\$ Within laboratory tolerances
\$\$ unable to analyse due to nature of sample
¥ Results for guidance only, possible interference
& Blank corrected
I.S insufficient sample for analysis
Intf Unable to analyse due to interferences
N.D Not determined
N.R Not recorded
N.Det Not detected
Req Analysis Requested, see attached sheets for results
p Raised detection limit due to nature of sample
***** denotes that all accreditation has been removed by the laboratory for this result.
‡ denotes that Mcerts accreditation has been removed by the laboratory for this result.
Note: The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected.

If you require further details of the circumstances leading to the removal of the accreditation from any data item please do not hesitate to contact the laboratory

END OF REPORT



TEST REPORT

LEACHATE SAMPLE ANALYSIS



TES Report No. EXR/088256 (Ver. 1)

RPS Consultants
Park House
Greyfriars Road
Cardiff
CF10 3AF

Site: AWE Burghfield

The 3 samples described in this report were logged for analysis by TES Bretby on 22-Sep-2008.
The analysis was completed by: 03-Oct-2008

Tests where the accreditation is set to N or No, and any individual data items marked with a * are not UKAS accredited
Any opinions or interpretations expressed herein are outside the scope of any UKAS accreditation held by TES Bretby Laboratories.

The following tables are contained in this report:

Table 1 Main Analysis Results (Page 2)
Table of Report Notes (Page 3)

On behalf of
TES Bretby :
J Elstub


Project Co-ordinator

Date of Issue: 03-Oct-2008

Tests marked '^' have been subcontracted to another laboratory.

TES Bretby accepts no responsibility for any sampling not carried out by our personnel.

Where individual results are flagged see report notes for for status.

Report Notes

Soil/Solid analysis specific:

Results expressed as mg/kg on an air dried basis unless stated otherwise
S04 analysis not conducted in accordance with BS1377 unless otherwise stated
Water Soluble Sulphate on 2:1 water:soil extract
AR denotes analysis conducted on the As Received sample

Water analysis specific:

Results expressed as mg/l unless stated otherwise

Oil analysis specific:

Results expressed as mg/kg unless stated otherwise
S.G. expressed as g/cm³ @ 15°C

Filter analysis specific:

Results expressed as mg on filter unless stated otherwise

VOC analysis specific:

Explanatory notes for data flagging
U = undetected above reporting limit
J = concentration at instrument was below lowest calibration standard
E = concentration at instrument was above top calibration standard
B = compound was detected in method blank

Gas (Tedlar bag) analysis specific:

Results expressed as ug/l unless stated otherwise

Air (Carbon tube) analysis specific:

Results expressed as ug on tube unless stated otherwise

Asbestos analysis specific:

CH denotes Chrysotile
CR denotes Crocidolite
AM denotes Amosite
NADIS denotes No Asbestos Detected in Sample
NBFO denotes No Bulk fibres Observed

General notes:

^ this analysis was subcontracted to another laboratory
\$ Within laboratory tolerances
\$\$ unable to analyse due to nature of sample
¥ Results for guidance only, possible interference
& Blank corrected
I.S insufficient sample for analysis
Intf Unable to analyse due to interferences
N.D Not determined
N.R Not recorded
N.Det Not detected
Req Analysis Requested, see attached sheets for results
p Raised detection limit due to nature of sample
* denotes that all accreditation has been removed by the laboratory for this result.
‡ denotes that Mcerts accreditation has been removed by the laboratory for this result.
Note: The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected.

If you require further details of the circumstances leading to the removal of the accreditation from any data item please do not hesitate to contact the laboratory

END OF REPORT

Appendix G

Explosives Results – Waters

TEST CERTIFICATE

Certificate No: BC0935/08

Site : RPS

Ref : A0009/08

Client : RPS Planning and Development

Date Received : 09/09/2008

Address : St Anne's House
Oxford Square
Oxford Street
Newbury

Date Completed : 16/09/2008

Date Of Report : 16/09/2008

RG14 1JQ

Attention : Graham Moore

Accreditation Key:

U = UKAS

M = UKAS & MCERTS

= Subcontracted Tests

Test Methods

Surface Water Explosives using method ESAL/QC/4 part r

Approved :



Dr D.G. Malcolm
Laboratory Manager

Mrs S. Marriott
Deputy Laboratory Manager

Mr M. Lattughi
Senior Analyst

Mr D.C. Poole
Senior Analyst



No. 1764

BAE SYSTEMS

REAL SOLUTIONS. REAL ADVANTAGE.

TABLE OF RESULTS

Water - Defence (Part 1 of 2)

Lab Code	20085898	20085899	20085900	20085901
Client Ref A	BH8F-001	BH8F-002	BH8F-003	BH8S-001
Client Ref B	JER3996	JER3996	JER3996	JER3996
Sample Type	Water	Water	Water	Water
Soil Type	N/A	N/A	N/A	N/A
HMX	<50 ug/l U	<50 ug/l U	<50 ug/l U	<50 ug/l U
RDX	<50 ug/l U	<50 ug/l U	<50 ug/l U	<50 ug/l U
EGDN	<50 ug/l U	<50 ug/l U	<50 ug/l U	<50 ug/l U
Tetryl	<50 ug/l U	<50 ug/l U	<50 ug/l U	<50 ug/l U
NG	<50 ug/l U	<50 ug/l U	<50 ug/l U	<50 ug/l U
TNT	<50 ug/l U	<50 ug/l U	<50 ug/l U	<50 ug/l U
PETN	<50 ug/l U	<50 ug/l U	<50 ug/l U	<50 ug/l U
Picrite	<50 ug/l U	<50 ug/l U	<50 ug/l U	<50 ug/l U
Picric Acid	<50 ug/l U	<50 ug/l U	<50 ug/l U	<50 ug/l U
2,4-DNT	<50 ug/l U	<50 ug/l U	<50 ug/l U	<50 ug/l U
2,6-DNT	<50 ug/l U	<50 ug/l U	<50 ug/l U	<50 ug/l U

TABLE OF RESULTS

Water - Defence (Part 2 of 2)

Lab Code	20085902		
Client Ref A	BH8S-002		
Client Ref B	JER3996		
Sample Type	Water		
Soil Type	N/A		
HMX	<50	ug/l	U
RDX	<50	ug/l	U
EGDN	<50	ug/l	U
Tetryl	<50	ug/l	U
NG	<50	ug/l	U
TNT	<50	ug/l	U
PETN	<50	ug/l	U
Picrite	<50	ug/l	U
Picric Acid	<50	ug/l	U
2,4-DNT	<50	ug/l	U
2,6-DNT	<50	ug/l	U

COMMENTS AND DEPARTURES FROM STANDARD PROCEDURES

Lab ID

Notes

There were no comments or departures from standard procedures

NOTES

1. This test report shall not be reproduced except in full, without written approval of the laboratory.
2. All results for soil samples are reported based on dry weight of soil which has been air-dried in open, shallow trays at ambient temperatures below 30°C and subsequently ground and sieved to pass through a nominal 750µm aperture sieve. In most cases, analysis is carried out directly on these prepared soils, with the following exceptions: volatile organic compounds; total and speciated phenols; free, total and complex cyanide; petrol range organic compounds; sulphide. These analyses are carried out on the soil "As received" and corrected for the known dry weight (at 105 °C) prior to reporting.
3. BAE Systems does not correct results for analytical recoveries.
4. Where provided, the value for total cresols is derived from the sum of the results for m- & p- cresol and o- cresol.
5. Where provided, the value for total xylenols is derived from the sum of the results for 3,4-dimethylphenol, 2,6-dimethylphenol, 3,5-dimethylphenol, 2,3-dimethylphenol, 2,5-dimethylphenol and 2,4-dimethylphenol.
6. Where provided, the value for total phenols is derived from the sum of the results for resorcinol, phenol, m- & p-cresol, o- cresol, 3,4-dimethylphenol, 2,6-dimethylphenol, 3,5-dimethylphenol, 2,3-dimethylphenol, 2,5-dimethylphenol, 2,4-dimethylphenol, 1-naphthol, 2-isopropylphenol, 2,3,5-trimethylphenol and pentachlorophenol.
7. All samples were received in good condition unless otherwise stated. Results provided by the Laboratory are based on samples submitted by clients. Once submitted, samples requiring analysis are stored at below 8 °C. The Laboratory cannot be held responsible for the storage, condition or preservation of samples prior to arrival.
8. Validation studies indicate that the concentration of nitrocellulose in high organic content soils may be overestimated.
9. A value of NQ indicates that a quantitative result could not be obtained because doping trials showed that the compound was retained by the matrix.
10. Soil descriptions are given in order to provide a log of sample matrices submitted and are not intended as full geological descriptions.
11. The initials or common names used for reporting explosives relate to the following compounds: Nitrocellulose(NC); Cyclotetramethylene Tetranitramine (HMX); Cyclo-1,3,5-Trimethylene-2,4,6-Trinitramine (RDX); Ethylene Glycol Dinitrate (EGDN); 2,4,6-Trinitro-Phenylmethyl Nitramine (Tetryl); Glycerol Trinitrate (NG); 2,4,6-Trinitrotoluene (TNT); Pentaerythritol Tetranitrate (PETN); Hexanitro-Stilbene (HNS); Nitroguanidine (Picrite); 2,4,6-Trinitro Phenol (Picric Acid); 2,4-Dinitrotoluene (2,4-DNT); 2,6-Dinitrotoluene (2,6-DNT).
12. * Some reporting limits may be raised due to poor recovery of internal standard or dilution of highly contaminated samples.
13. # Mass spectral match criteria were not fully met, possibly indicating a co-eluting peak that may inflate the result.
14. Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

End of Report BC0935/08

TEST CERTIFICATE

Certificate No: BC0977/08

Site : **Ref :** A0009/08

Client : RPS Planning and Development **Date Received :** 23/09/2008

Address : St Anne's House **Date Completed :** 29/09/2008
Oxford Square
Oxford Street **Date Of Report :** 29/09/2008
Newbury

Attention : Chris Warde

Accreditation Key: U = UKAS M = UKAS & MCERTS # = Subcontracted Tests

Test Methods

Surface Water Explosives using method ESAL/QC/4 part r

Approved :



Dr D.G. Malcolm
Laboratory Manager

Mrs S. Marriott
Deputy Laboratory Manager

Mr M. Lattughi
Senior Analyst

Mr D.C. Poole
Senior Analyst



No. 1764

BAE SYSTEMS

REAL SOLUTIONS. REAL ADVANTAGE.

TABLE OF RESULTS

Water - Defence (Part 1 of 2)

Lab Code	20086215	20086216	20086217	20086218
Client Ref A	JER 3996	JER 3996	JER 3996	JER 3996
Client Ref B	BH8F-001	BH8F-002	BH8F-003	BH8S-001
Sample Type	Water	Water	Water	Water
Soil Type	N/A	N/A	N/A	N/A
HMX	<50 ug/l U	<50 ug/l U	<50 ug/l U	<50 ug/l U
RDX	<50 ug/l U	<50 ug/l U	<50 ug/l U	<50 ug/l U
EGDN	<50 ug/l U	<50 ug/l U	<50 ug/l U	<50 ug/l U
Tetryl	<50 ug/l U	<50 ug/l U	<50 ug/l U	<50 ug/l U
NG	<50 ug/l U	<50 ug/l U	<50 ug/l U	<50 ug/l U
TNT	<50 ug/l U	<50 ug/l U	<50 ug/l U	<50 ug/l U
PETN	<50 ug/l U	<50 ug/l U	<50 ug/l U	<50 ug/l U
Picrite	<50 ug/l U	<50 ug/l U	<50 ug/l U	<50 ug/l U
Picric Acid	<50 ug/l U	<50 ug/l U	<50 ug/l U	<50 ug/l U
2,4-DNT	<50 ug/l U	<50 ug/l U	<50 ug/l U	<50 ug/l U
2,6-DNT	<50 ug/l U	<50 ug/l U	<50 ug/l U	<50 ug/l U

TABLE OF RESULTS

Water - Defence (Part 2 of 2)

Lab Code	20086219
Client Ref A	JER 3996
Client Ref B	BH8S-002
Sample Type	Water
Soil Type	N/A
HMX	<50 ug/l U
RDX	<50 ug/l U
EGDN	<50 ug/l U
Tetryl	<50 ug/l U
NG	<50 ug/l U
TNT	<50 ug/l U
PETN	<50 ug/l U
Picrite	<50 ug/l U
Picric Acid	<50 ug/l U
2,4-DNT	<50 ug/l U
2,6-DNT	<50 ug/l U

COMMENTS AND DEPARTURES FROM STANDARD PROCEDURES

Lab ID

Notes

There were no comments or departures from standard procedures

NOTES

1. This test report shall not be reproduced except in full, without written approval of the laboratory.
2. All results for soil samples are reported based on dry weight of soil which has been air-dried in open, shallow trays at ambient temperatures below 30°C and subsequently ground and sieved to pass through a nominal 750µm aperture sieve. In most cases, analysis is carried out directly on these prepared soils, with the following exceptions: volatile organic compounds; total and speciated phenols; free, total and complex cyanide; petrol range organic compounds; sulphide. These analyses are carried out on the soil "As received" and corrected for the known dry weight (at 105 °C) prior to reporting.
3. BAE Systems does not correct results for analytical recoveries.
4. Where provided, the value for total cresols is derived from the sum of the results for m- & p- cresol and o- cresol.
5. Where provided, the value for total xylenols is derived from the sum of the results for 3,4-dimethylphenol, 2,6-dimethylphenol, 3,5-dimethylphenol, 2,3-dimethylphenol, 2,5-dimethylphenol and 2,4-dimethylphenol.
6. Where provided, the value for total phenols is derived from the sum of the results for resorcinol, phenol, m- & p-cresol, o- cresol, 3,4-dimethylphenol, 2,6-dimethylphenol, 3,5-dimethylphenol, 2,3-dimethylphenol, 2,5-dimethylphenol, 2,4-dimethylphenol, 1-naphthol, 2-isopropylphenol, 2,3,5-trimethylphenol and pentachlorophenol.
7. All samples were received in good condition unless otherwise stated. Results provided by the Laboratory are based on samples submitted by clients. Once submitted, samples requiring analysis are stored at below 8 °C. The Laboratory cannot be held responsible for the storage, condition or preservation of samples prior to arrival.
8. Validation studies indicate that the concentration of nitrocellulose in high organic content soils may be overestimated.
9. A value of NQ indicates that a quantitative result could not be obtained because doping trials showed that the compound was retained by the matrix.
10. Soil descriptions are given in order to provide a log of sample matrices submitted and are not intended as full geological descriptions.
11. The initials or common names used for reporting explosives relate to the following compounds: Nitrocellulose(NC); Cyclotetramethylene Tetranitramine (HMX); Cyclo-1,3,5-Trimethylene-2,4,6-Trinitramine (RDX); Ethylene Glycol Dinitrate (EGDN); 2,4,6-Trinitro-Phenylmethyl Nitramine (Tetryl); Glycerol Trinitrate (NG); 2,4,6-Trinitrotoluene (TNT); Pentaerythritol Tetranitrate (PETN); Hexanitro-Stilbene (HNS); Nitroguanidine (Picrite); 2,4,6-Trinitro Phenol (Picric Acid); 2,4-Dinitrotoluene (2,4-DNT); 2,6-Dinitrotoluene (2,6-DNT).
12. * Some reporting limits may be raised due to poor recovery of internal standard or dilution of highly contaminated samples.
13. # Mass spectral match criteria were not fully met, possibly indicating a co-eluting peak that may inflate the result.
14. Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

End of Report BC0977/08

TEST CERTIFICATE

Certificate No: BC1020/08

Site : Awe Burghfield

Ref : A0009/08

Client : RPS Planning and Development

Date Received : 07/10/2008

Address : St Anne's House
Oxford Square
Oxford Street
Newbury

Date Completed : 09/10/2008

Date Of Report : 09/10/2008

RG14 1JQ

Attention : Chris Warde

Accreditation Key:

U = UKAS

M = UKAS & MCERTS

= Subcontracted Tests

Test Methods

Surface Water Explosives using method ESAL/QC/4 part r

Approved :



Dr D.G. Malcolm
Laboratory Manager

Mrs S. Marriott
Deputy Laboratory Manager

Mr M. Lattughi
Senior Analyst

Mr D.C. Poole
Senior Analyst



No. 1764

BAE SYSTEMS

REAL SOLUTIONS. REAL ADVANTAGE.

TABLE OF RESULTS

Water - Defence (Part 1 of 2)

Lab Code	20086458	20086459	20086460	20086461
Client Ref A	BH8F-001	BH8F-002	BH8F-003	BH8S-001
Client Ref B	JER 3996	JER 3996	JER 3996	JER 3996
Sample Type	Water	Water	Water	Water
Soil Type	N/A	N/A	N/A	N/A
HMX	<50 ug/l U	<50 ug/l U	<50 ug/l U	<50 ug/l U
RDX	<50 ug/l U	<50 ug/l U	<50 ug/l U	<50 ug/l U
EGDN	<50 ug/l U	<50 ug/l U	<50 ug/l U	<50 ug/l U
Tetryl	<50 ug/l U	<50 ug/l U	<50 ug/l U	<50 ug/l U
NG	<50 ug/l U	<50 ug/l U	<50 ug/l U	<50 ug/l U
TNT	<50 ug/l U	<50 ug/l U	<50 ug/l U	<50 ug/l U
PETN	<50 ug/l U	<50 ug/l U	<50 ug/l U	<50 ug/l U
Picrite	<50 ug/l U	<50 ug/l U	<50 ug/l U	<50 ug/l U
Picric Acid	<50 ug/l U	<50 ug/l U	<50 ug/l U	<50 ug/l U
2,4-DNT	<50 ug/l U	<50 ug/l U	<50 ug/l U	<50 ug/l U
2,6-DNT	<50 ug/l U	<50 ug/l U	<50 ug/l U	<50 ug/l U

TABLE OF RESULTS

Water - Defence (Part 2 of 2)

Lab Code	20086462		
Client Ref A	BH8S-002		
Client Ref B	JER 3996		
Sample Type	Water		
Soil Type	N/A		
HMX	<50	ug/l	U
RDX	<50	ug/l	U
EGDN	<50	ug/l	U
Tetryl	<50	ug/l	U
NG	<50	ug/l	U
TNT	<50	ug/l	U
PETN	<50	ug/l	U
Picrite	<50	ug/l	
Picric Acid	<50	ug/l	
2,4-DNT	<50	ug/l	U
2,6-DNT	<50	ug/l	U

COMMENTS AND DEPARTURES FROM STANDARD PROCEDURES

Lab ID

Notes

There were no comments or departures from standard procedures

NOTES

1. This test report shall not be reproduced except in full, without written approval of the laboratory.
2. All results for soil samples are reported based on dry weight of soil which has been air-dried in open, shallow trays at ambient temperatures below 30°C and subsequently ground and sieved to pass through a nominal 750µm aperture sieve. In most cases, analysis is carried out directly on these prepared soils, with the following exceptions: volatile organic compounds; total and speciated phenols; free, total and complex cyanide; petrol range organic compounds; sulphide. These analyses are carried out on the soil "As received" and corrected for the known dry weight (at 105 °C) prior to reporting.
3. BAE Systems does not correct results for analytical recoveries.
4. Where provided, the value for total cresols is derived from the sum of the results for m- & p- cresol and o- cresol.
5. Where provided, the value for total xylenols is derived from the sum of the results for 3,4-dimethylphenol, 2,6-dimethylphenol, 3,5-dimethylphenol, 2,3-dimethylphenol, 2,5-dimethylphenol and 2,4-dimethylphenol.
6. Where provided, the value for total phenols is derived from the sum of the results for resorcinol, phenol, m- & p-cresol, o- cresol, 3,4-dimethylphenol, 2,6-dimethylphenol, 3,5-dimethylphenol, 2,3-dimethylphenol, 2,5-dimethylphenol, 2,4-dimethylphenol, 1-naphthol, 2-isopropylphenol, 2,3,5-trimethylphenol and pentachlorophenol.
7. All samples were received in good condition unless otherwise stated. Results provided by the Laboratory are based on samples submitted by clients. Once submitted, samples requiring analysis are stored at below 8 °C. The Laboratory cannot be held responsible for the storage, condition or preservation of samples prior to arrival.
8. Validation studies indicate that the concentration of nitrocellulose in high organic content soils may be overestimated.
9. A value of NQ indicates that a quantitative result could not be obtained because doping trials showed that the compound was retained by the matrix.
10. Soil descriptions are given in order to provide a log of sample matrices submitted and are not intended as full geological descriptions.
11. The initials or common names used for reporting explosives relate to the following compounds: Nitrocellulose(NC); Cyclotetramethylene Tetranitramine (HMX); Cyclo-1,3,5-Trimethylene-2,4,6-Trinitramine (RDX); Ethylene Glycol Dinitrate (EGDN); 2,4,6-Trinitro-Phenylmethyl Nitramine (Tetryl); Glycerol Trinitrate (NG); 2,4,6-Trinitrotoluene (TNT); Pentaerythritol Tetranitrate (PETN); Hexanitro-Stilbene (HNS); Nitroguanidine (Picrite); 2,4,6-Trinitro Phenol (Picric Acid); 2,4-Dinitrotoluene (2,4-DNT); 2,6-Dinitrotoluene (2,6-DNT).
12. * Some reporting limits may be raised due to poor recovery of internal standard or dilution of highly contaminated samples.
13. # Mass spectral match criteria were not fully met, possibly indicating a co-eluting peak that may inflate the result.
14. Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

End of Report BC1020/08

Appendix H

Radiological Results – Waters

Test Report: **Series RG 2390**

Analysis of Gross Alpha/Beta in Water

Prepared for G Moore
RPS Planning and Development Ltd
September 2008

Analysis of Gross Alpha/Beta in Water

Client: RPS Planning and Development Ltd
Park House
Greyfriars Road
Cardiff
CF10 3AF
United Kingdom

Testing Facility: Harwell Scientifics
551 South Becquerel Avenue
Harwell Science and Innovation Campus
Chilton Didcot
Oxon
OX11 0TB

Laboratory Reference: Series RG 2390
Customer Reference: BH8F-003 04/09/08
Quote Number: ENR-HAR-5172
Job Number: E915
Samples Received: 05 September 08
Analysis Completed: 15 September 08

Checked by:
Approved by:
Approver's name: Claire Wells
Job Title: Analyst
Report Date: 15 September 08

Introduction

Please find enclosed the results for the analysis of your samples. The samples were received in good condition.

Experimental

Gross Alpha /Beta in Water (WI/2002 Issue 9)

An acidified water sample was concentrated by evaporation and sulphuric acid (specific gravity 1.84) added, the solution was then evaporated to dryness. The resulting solid material was ashed in a muffle furnace. An aliquot of the ground residue was used to prepare a uniform thickness source which was counted on a Berthold LB770 low-level proportional counter for 1000 minutes.

Results for the Analysis of Gross Alpha/Beta in Water

Customer Reference	Laboratory Reference	Gross Alpha	Gross Beta
BH8F-003 04/09/08	RG 2390	< 1	1.2 ± 0.3
BH8F-001 04/09/08	RG 2391	<0.3	0.80 ± 0.13
BH8F-002 04/09/08	RG 2392	< 0.3	1.1 ± 0.2
BH8S-001 04/09/08	RG 2393	< 0.7	1.0 ± 0.2
BH8S-002 04/09/08	RG 2394	< 0.8	1.70 ± 0.30

Notes:

1. Results are presented as Bq l⁻¹ per sample as received.
2. LoD's for gross alpha and gross beta are 0.05 and 0.1 Bq l⁻¹, unless otherwise stated.
3. Uncertainties are quoted at 2 s.d. based on expanded uncertainties
4. LoD's cannot always be achieved due to the dissolved solid content of the sample.

Test Report: **Series RG 2568**

Radiochemical Analysis of Waters

Graham Moore

RPS Planning & Development

November 2008

Radiochemical Analysis of Waters

Client: RPS Planning & Development
Park House
Greyfriars Road
Cardiff
CF10 3AF
United Kingdom

Testing Facility: Harwell Scientifics
551 South Becquerel Avenue
Harwell Science and Innovation Campus
Chilton Didcot
Oxon
OX11 0TB

Laboratory Reference: Series RG 2568

Customer Reference: BH8F-003

Quote Number: ENR-HAR-5172

Job Number: E915

Samples Received: 15 September 2008

Analysis Completed: 07 November 2008

Checked by:

Approved by:

Approver's name: Garry Prior

Job Title: Principal Analyst

Report Date: 10 November 2008

Introduction

Please find enclosed the results for the analysis of your samples. The samples were received in good condition.

Experimental

Radioactivity analysis by gamma ray spectrometry (WI/2029 Issue 7)

The measurement technique is based on the use of germanium detectors coupled to a computerized analytical system. The detectors are calibrated for efficiency using a mixed radionuclide standard, which covers an energy range of approximately 120-2000 keV. Efficiencies at lower energies are determined on an individual basis. Stored spectra are analysed using the software FITZPEAKS for photopeak identification and subsequent quantification.

Plutonium & Uranium isotopes in water (WI/2116 Issue 3)

The water sample was filtered to remove any solid material. The appropriate internal yield tracers were added and the sample boiled under reflux for approximately 1 hour to remove carbon dioxide. After co-precipitation of the nuclides of interest with iron (III) hydroxide, ion-exchange chromatography was then used to further purify and separate the uranium, and plutonium isotopes, which were then electrodeposited onto stainless-steel discs. Measurement of the uranium and plutonium isotopes was carried out by alpha-spectrometry.

Polonium-210 by wet oxidation (WI/2082 Issue 5)

Polonium-208 was added to the sample as an internal tracer, and then co precipitated with ferric hydroxide. The polonium in the sample was converted to the chloride form by treating with hydrochloric acid. The solution was then spontaneously deposited on a silver disc. This silver disc was measured by alpha spectrometry to determine the ratio of Po-210 to Po-208.

Tritium in water (WI/2093 Issue 5)

The sample was treated by alkaline distillation in the presence of sodium thiosulphate to hold back most quenching materials, as well as inorganic radiocarbon and radioiodine. An aliquot of the distillate was mixed with liquid scintillation cocktail and the tritium content was measured by beta spectrometry on a calibrated low-level liquid scintillation counter. Tritiated water standards were used to produce a quench correction curve and thus, calculate efficiency.

Thorium isotopes in water (WI/2119 Issue 5)

The water sample was acidified. Ion-exchange chromatography was used to purify the thorium which was then electrodeposited onto stainless-steel discs. Measurement of the thorium isotopes was effected by alpha-spectrometry.

Results for the determination of Tritium in Water

Customer Reference	Laboratory Reference	Tritium
BH8F-003	RG2568	< 10
BH8F-001	RG2569	< 10
BH8F-002	RG2570	< 10
BH8S-001	RG2571	< 10
BH8S-002	RG2572	< 10

Notes:

1. Result is presented as Bq l⁻¹ per sample as received and is decay corrected to the reference date (12.33 years half life for Tritium).
2. Uncertainties are quoted at 2 s.d. based on expanded uncertainties.
3. LoD for tritium 10 Bq l⁻¹.

Results for the determination of Plutonium in Water

Customer Reference	Laboratory Reference	²³⁹⁺²⁴⁰ Pu	²³⁸ Pu
BH8S-002	RG 2572	< 0.02	< 0.02

Notes:

1. Results are presented as Bq l⁻¹ per sample as received.
2. Uncertainties are quoted at 2 SD based on expanded uncertainties.

Results for the determination of Uranium in Water

Customer Reference	Laboratory Reference	²³⁸ U	²³⁵ U	²³⁴ U
BH8S-002	RG 2572	< 0.003	< 0.004	< 0.004

Notes:

1. Results are presented as Bq l⁻¹ per sample as received.
2. Uncertainties are quoted at 2 SD based on expanded uncertainties.

Results for the determination of Thorium in Water

Customer Reference	Laboratory Reference	^{228}Th	^{230}Th	^{232}Th
BH8S-002	RG 2572	< 0.06	< 0.02	< 0.02

Notes:

1. Results are presented as Bq l^{-1} per sample as received.
2. Uncertainties are quoted at 2 SD based on expanded uncertainties.

Results for the determination of Polonium in Water

Customer Reference	Laboratory Reference	^{210}Po
BH8S-002	RG 2572	< 0.004

Notes:

1. Results are presented as Bq l^{-1} per sample as received.
2. Uncertainties are quoted at 2 SD based on expanded uncertainties.

Gamma Spectrometry Results for Water

Customer Reference	Laboratory Reference	K-40	Mn-54	Co-60	Zn-65	Zr-95	Cs-134	Cs-137	Eu-152	Tl-208	Pb-210
BH8F-003	RG2568	< 4	< 0.2	< 0.2	< 0.4	< 0.3	< 0.2	< 0.2	< 0.3	< 0.2	< 2
BH8F-002	RG2570	< 5	< 0.2	< 0.2	< 0.4	< 0.3	< 0.2	< 0.2	< 0.3	< 0.3	< 2
BH8S-002	RG2572	< 3	< 0.2	< 0.2	< 0.6	< 0.2	< 0.2	< 0.2	< 0.2	< 0.4	< 2

Customer Reference	Laboratory Reference	Pb-212	Bi-212	Pb-214	Bi-214	† Ra-226	Ac-228	Th-234	† U-235	Am-241
BH8F-003	RG2568	< 0.3	< 4	< 0.5	< 0.8	< 3	< 0.5	< 3	< 1	< 0.3
BH8F-002	RG2570	< 0.4	< 4	< 0.6	< 0.9	< 3	< 0.6	< 2	< 0.9	< 0.2
BH8S-002	RG2572	< 0.7	< 4	< 0.5	< 0.8	< 3	< 0.6	< 4	< 2	< 0.2

Notes:

1. Results are presented as Bq l⁻¹ sample as received.
2. Detector calibrations are based upon homogeneous standard solutions. For quantification purposes the samples are assumed to be homogeneous.
3. Results marked with a † are not UKAS accredited.
4. Due to the peaks for both ²²⁶Ra and ²³⁵U being at approximately 185keV, individual results cannot be accurately determined by the software. Therefore, please note that these results are guideline figures only, and if an accurate result for either nuclide is required this is better obtained by radiochemical analysis.
5. Results above LoD are reported to 2 significant figures.
6. Uncertainties are quoted at 2SD based on expanded uncertainties.



Test Report: **Series RG 2733**

Radiochemical Analysis of Water

Prepared for Chris Warde
RPS Planning & Development

October 2008

Radiochemical Analysis of Water

Client: RPS Planning & Development
Oxford Square
Oxford St
Newbury
RG14 1JQ
United Kingdom

Testing Facility: Harwell Scientifics
551 South Becquerel Avenue
Harwell Science and Innovation Campus
Chilton Didcot
Oxon
OX11 0TB

Laboratory Reference: Series RG 2733
Customer Reference: JER3996MENSA(AWE(B) BH8F-001
Quote Number: CON-HAR-PD4215
Job Number: E915
Samples Received: 29 September 2008
Analysis Completed: 07 October 2008

Checked by:
Approved by:
Approver's name: Claire Wells
Job Title: Analyst
Report Date: 07 October 2008

Introduction

Please find enclosed the results for the analysis of your samples. The samples were received in good condition.

Experimental

Gross Alpha /Beta in Water (WI/2002 Issue 9)

An acidified water sample was concentrated by evaporation and sulphuric acid (specific gravity 1.84) added, the solution was then evaporated to dryness. The resulting solid material was ashed in a muffle furnace. An aliquot of the ground residue was used to prepare a uniform thickness source which was counted on a Berthold LB770 low-level proportional counter for 1500 minutes.

Tritium in Water (WI/2093 Issue 5)

The sample was treated by alkaline distillation in the presence of sodium thiosulphate to hold back most quenching materials, as well as inorganic radiocarbon and radioiodine. An aliquot of the distillate was mixed with liquid scintillation cocktail and the tritium content was measured by beta spectrometry on a calibrated low-level liquid scintillation counter. Tritiated water standards were used to produce a quench correction curve and thus, calculate efficiency.

Results for the Analysis of Gross Alpha/Beta in Water

Customer Reference	Laboratory Reference	Gross Alpha	Gross Beta
BH8F-001	RG 2733	< 2	2.5 ± 0.4
BH8F-002	RG 2734	< 1	1.7 ± 0.2
BH8F-003	RG 2735	< 0.7	1.3 ± 0.2
BH8S-001	RG 2736	< 2	1.9 ± 0.3
BH8S-002	RG 2737	< 0.6	1.2 ± 0.2

Notes:

1. Results are presented as Bq l⁻¹ per sample as received.
2. LoD's for gross alpha and gross beta are 0.05 and 0.1 Bq l⁻¹, unless otherwise stated.
3. Uncertainties are quoted at 2 SD based on expanded uncertainties
4. LoD's cannot always be achieved due to the dissolved solid content of the sample.

Results for the Analysis of Tritium in Water

Customer Reference	Laboratory Reference	Tritium
BH8F-001	RG 2733	< 10
BH8F-002	RG 2734	< 10
BH8F-003	RG 2735	< 10
BH8S-001	RG 2736	< 10
BH8S-002	RG 2737	< 10

Notes:

1. Result is presented as Bq l⁻¹ per sample as received and is decay corrected to the reference date (12.33 years half life for Tritium).
2. LoD for tritium 10 Bq l⁻¹.unless otherwise stated.
3. Uncertainties are quoted at 2 SD based on expanded uncertainties.

Test Report: **Series RG 2832**

Analysis of Gross Alpha/Beta in Water

Prepared for G Moore
RPS Planning and Development Ltd

October 2008

Analysis of Gross Alpha/Beta in Water

Client: RPS Planning and Development Ltd
Park House
Greyfriars Road
Cardiff
CF10 3AF
United Kingdom

Testing Facility: Harwell Scientifics
551 South Becquerel Avenue
Harwell Science and Innovation Campus
Chilton Didcot
Oxon
OX11 0TB

Laboratory Reference: Series RG 2832
Customer Reference: BH8F-001
Quote Number: ENR-HAR-4341
Job Number: E915
Samples Received: 06 October 2008
Analysis Completed: 13 October 2008

Checked by:
Approved by:
Approver's name: Garry Prior
Job Title: Principal Analyst
Report Date: 13 October 2008

Introduction

Please find enclosed the results for the analysis of your samples. The samples were received in good condition.

Experimental

Gross Alpha /Beta in Water (WI/2002 Issue 9)

An acidified water sample was concentrated by evaporation and sulphuric acid (specific gravity 1.84) added, the solution was then evaporated to dryness. The resulting solid material was ashed in a muffle furnace. An aliquot of the ground residue was used to prepare a uniform thickness source which was counted on a Berthold LB770 low-level proportional counter for 1000 minutes.

Results for the Analysis of Gross Alpha/Beta in Water

Customer Reference	Laboratory Reference	Gross Alpha	Gross Beta
BH8F-001	RG 2832	< 3	1.8 ± 0.4
BH8F-002	RG 2833	< 2	2.5 ± 0.3
BH8F-003	RG 2834	< 3	3.4 ± 0.6
BH8S-001	RG 2835	< 2	5.2 ± 0.7
BH8S-002	RG 2836	< 0.7	1.3 ± 0.3

Notes:

1. Results are presented as Bq l⁻¹ per sample as received.
2. LoD's for gross alpha and gross beta are 0.05 and 0.1 Bq l⁻¹, unless otherwise stated.
3. Uncertainties are quoted at 2 s.d. based on expanded uncertainties
4. LoD's cannot always be achieved due to the dissolved solid content of the sample.

Test Report: **Series RG 2952**

Radiochemical Analysis of Waters

Graham Moore

RPS Planning & Development

November 2008

Radiochemical Analysis of Waters

Client: RPS Planning & Development
Park House
Greyfriars Road
Cardiff
CF10 3AF
United Kingdom

Testing Facility: Harwell Scientifics
551 South Becquerel Avenue
Harwell Science and Innovation Campus
Chilton Didcot
Oxon
OX11 0TB

Laboratory Reference: Series RG 2952

Customer Reference: BH8S-001

Quote Number: ENR-HAR-4341

Job Number: E915

Samples Received: 16 October 2008

Analysis Completed: 10 November 2008

Checked by:

Approved by:

Approver's name: Garry Prior

Job Title: Principal Analyst

Report Date: 11 November 2008

Introduction

Please find enclosed the results for the analysis of your samples. The samples were received in good condition.

Experimental

Radioactivity analysis by gamma ray spectrometry (WI/2029 Issue 7)

The measurement technique is based on the use of germanium detectors coupled to a computerized analytical system. The detectors are calibrated for efficiency using a mixed radionuclide standard, which covers an energy range of approximately 120-2000 keV. Efficiencies at lower energies are determined on an individual basis. Stored spectra are analysed using the software FITZPEAKS for photopeak identification and subsequent quantification.

Plutonium & Uranium isotopes in water (WI/2116 Issue 3)

The water sample was filtered to remove any solid material. The appropriate internal yield tracers were added and the sample boiled under reflux for approximately 1 hour to remove carbon dioxide. After co-precipitation of the nuclides of interest with iron (III) hydroxide, ion-exchange chromatography was then used to further purify and separate the uranium, and plutonium isotopes, which were then electrodeposited onto stainless-steel discs. Measurement of the uranium and plutonium isotopes was carried out by alpha-spectrometry.

Polonium-210 by wet oxidation (WI/2082 Issue 5)

Polonium-208 was added to the sample as an internal tracer, and then co precipitated with ferric hydroxide. The polonium in the sample was converted to the chloride form by treating with hydrochloric acid. The solution was then spontaneously deposited on a silver disc. This silver disc was measured by alpha spectrometry to determine the ratio of Po-210 to Po-208.

Tritium in water (WI/2093 Issue 5)

The sample was treated by alkaline distillation in the presence of sodium thiosulphate to hold back most quenching materials, as well as inorganic radiocarbon and radioiodine. An aliquot of the distillate was mixed with liquid scintillation cocktail and the tritium content was measured by beta spectrometry on a calibrated low-level liquid scintillation counter. Tritiated water standards were used to produce a quench correction curve and thus, calculate efficiency.

Thorium isotopes in water (WI/2119 Issue 5)

The water sample was acidified. Ion-exchange chromatography was used to purify the thorium which was then electrodeposited onto stainless-steel discs. Measurement of the thorium isotopes was effected by alpha-spectrometry.

Results for the determination of Tritium in Waters

Customer Reference	Laboratory Reference	Tritium
BH8F-001	RG 2954	< 10
BH8F-003	RG 2955	< 10
BH8S-001	RG 2956	< 10

Notes:

1. Result is presented as Bq l⁻¹ per sample as received and is decay corrected to the reference date (12.33 years half life for Tritium).
2. Uncertainties are quoted at 2 s.d. based on expanded uncertainties.
3. LoD for tritium 10 Bq l⁻¹.

Results for the determination of Plutonium in Waters

Customer Reference	Laboratory Reference	²³⁹⁺²⁴⁰ Pu	²³⁸ Pu
BH8S-001	RG 2952	< 0.003	< 0.005
BH8F-001	RG 2953	< 0.006	< 0.007
BH8F-002	RG 2954	< 0.004	< 0.004
BH8F-003	RG 2955	< 0.003	< 0.005
BH8S-001	RG 2956	< 0.007	< 0.01

Notes:

1. Results are presented as Bq l⁻¹ per sample as received.
2. Uncertainties are quoted at 2 SD based on expanded uncertainties.

Results for the determination of Uranium in Waters

Customer Reference	Laboratory Reference	²³⁸ U	²³⁵ U	²³⁴ U
BH8S-001	RG 2952	0.14 ± 0.01	< 0.006	0.18 ± 0.01
BH8F-001	RG 2953	0.083 ± 0.009	< 0.003	0.10 ± 0.01
BH8F-002	RG 2954	0.043 ± 0.005	< 0.004	0.078 ± 0.008
BH8F-003	RG 2955	0.16 ± 0.01	< 0.006	0.22 ± 0.02
BH8S-001	RG 2956	0.21 ± 0.02	< 0.006	0.30 ± 0.02

Notes:

1. Results are presented as Bq l⁻¹ per sample as received.
2. Uncertainties are quoted at 2 SD based on expanded uncertainties.



Results for the determination of Thorium in Waters

Customer Reference	Laboratory Reference	^{232}Th	^{230}Th	^{228}Th
BH8S-001	RG 2952	0.015 ± 0.003	< 0.005	< 0.005
BH8F-001	RG 2953	< 0.002	< 0.003	< 0.005
BH8F-002	RG 2954	< 0.002	< 0.002	< 0.004
BH8F-003	RG 2955	< 0.004	< 0.002	< 0.003
BH8S-001	RG 2956	< 0.002	< 0.003	< 0.004

Notes:

1. Results are presented as Bq l^{-1} per sample as received.
2. Uncertainties are quoted at 2 SD based on expanded uncertainties.

Results for the determination of Polonium in Waters

Customer Reference	Laboratory Reference	^{210}Po
BH8S-001	RG 2952	< 0.003
BH8F-001	RG 2953	0.01 ± 0.003
BH8F-002	RG 2954	< 0.002
BH8F-003	RG 2955	< 0.004
BH8S-001	RG 2956	< 0.003

Notes:

1. Results are presented as Bq l^{-1} per sample as received.
2. Uncertainties are quoted at 2 SD based on expanded uncertainties.

Gamma Spectrometry Results for Waters

Customer Reference	Laboratory Reference	K-40	Mn-54	Co-60	Zn-65	Zr-95	Cs-134	Cs-137	Eu-152	Tl-208	Pb-210
BH8F-001	RG 2954	11 ± 3	< 0.2	< 0.2	< 0.3	< 0.4	< 0.2	< 0.2	< 0.2	< 0.4	< 3
BH8F-003	RG 2955	< 7	< 0.2	< 0.2	< 0.5	< 0.3	< 0.2	< 0.2	< 0.4	< 0.7	< 5
BH8S-001	RG 2956	< 4	< 0.2	< 0.2	< 0.4	< 0.4	< 0.2	< 0.2	< 0.3	< 0.6	< 4

Customer Reference	Laboratory Reference	Pb-212	Bi-212	Pb-214	Bi-214	† Ra-226	Ac-228	Th-234	† U-235	Am-241
BH8F-001	RG 2954	< 0.8	< 5	< 0.9	< 1	< 5	< 0.9	< 4	< 2	< 0.2
BH8F-003	RG 2955	< 0.8	< 4	< 2	< 2	< 8	< 2	< 3	< 2	< 0.3
BH8S-001	RG 2956	< 0.4	< 4	< 0.6	< 0.7	< 3	< 2	< 3	< 0.6	< 0.2

Notes:

1. Results are presented as Bq l⁻¹ sample as received.
2. Detector calibrations are based upon homogeneous standard solutions. For quantification purposes the samples are assumed to be homogeneous.
3. Results marked with a † are not UKAS accredited.
4. Due to the peaks for both ²²⁶Ra and ²³⁵U being at approximately 185keV, individual results cannot be accurately determined by the software. Therefore, please note that these results are guideline figures only, and if an accurate result for either nuclide is required this is better obtained by radiochemical analysis.
5. Results above LoD are reported to 2 significant figures.
6. Uncertainties are quoted at 2SD based on expanded uncertainties.



Appendix I

Chemical Results – Waters

TES Report No. EXR/087954 (Ver. 1)

RPS Consultants
Park House
Greyfriars Road
Cardiff
CF10 3AF

Site: 8S8F Investigation

The 5 samples described in this report were logged for analysis by TES Bretby on 12-Sep-2008.
The analysis was completed by: 03-Oct-2008

Tests where the accreditation is set to N or No, and any individual data items marked with a * are not UKAS accredited
Any opinions or interpretations expressed herein are outside the scope of any UKAS accreditation held by TES Bretby Laboratories.

The following tables are contained in this report:

Table 1 Main Analysis Results (Pages 2 to 4)
Table of GRO Results (Page 5)
Table of PAH (MS-SIM) (10) Results (Pages 6 to 10)
Table of TPH (Si) banding (0.01) (Page 11)
GC-FID Chromatograms (Pages 12 to 22)
Table of VOC (HSA) Results (Pages 23 to 37)
Table of VOC (Tics) Results (Pages 38 to 52)
Table of Report Notes (Page 53)

On behalf of
TES Bretby :
J Elstub




Project Co-ordinator

Date of Issue: 03-Oct-2008

Tests marked 'A' have been subcontracted to another laboratory.

TES Bretby accepts no responsibility for any sampling not carried out by our personnel.

Where individual results are flagged see report notes for for status.

TES ID Number	Client Sample Description	Sample Date	pH units	Total Hardness as CaCO3	Total Sulphur as SO4 (Dissolved) a	Calcium as Ca (Dissolved) a	Magnesium as Mg (Dissolved) a	Nickel as Ni (Dissolved)	Chromium as Cr (Dissolved)	Cadmium as Cd (Dissolved)	Copper as Cu (Dissolved)	Lead as Pb (Dissolved)	Zinc as Zn (Dissolved)	Manganese as Mn (Dissolved)	Ferric Iron as Fe(3+)	Ferrous Iron as Fe(2+)	Iron as Fe:(Total)	Arsenic as As (Dissolved)	Units :	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l																					
																			Method Codes :	WSLM3	Calc	CPWATVAR	CPWATVAR	CPWATVAR	ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSW	KONEFE	KONEFE	KONEFE	KONEFE	ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSW			
																			Method Reporting Limits :			3.0	1.0	1.0	0.001	0.001	0.0001	0.001	0.001	0.001	0.002	0.002	0.01	0.01	0.01	0.01	0.001																		
																			UKAS Accredited :	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes																		
0831577	BH8S-001	05-Sep-08	6.8	2360	2020	484	279	0.028	0.005	0.0003	0.002	<0.001	0.017					0.001																																					
0831578	BH8S-002	05-Sep-08	7.2	1080	1020	210	136	0.005	0.005	<0.0001	<0.001	<0.001	0.006					0.002																																					
0831580	BH8F-001	05-Sep-08	7.0	1480	1220	284	186	0.024	0.004	0.0001	0.001	<0.001	0.012					0.002																																					
0831581	BH8F-002	05-Sep-08	7.4	970	816	187	122	0.002	0.004	<0.0001	<0.001	<0.001	0.005					<0.001																																					
0831582	BH8F-003	05-Sep-08	6.6	4420	3100	573	725	0.044	0.011	0.0005	0.005	<0.001	0.014					0.002																																					
TES Bretby PO Box 100, Bretby Business Park, Burton-on-Trent, Staffordshire, DE15 0XD Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422				Client Name				RPS Consultants				Water Sample Analysis																																											
				Contact				Mr G Moore																																															
				TCE Investigation								Date Printed		03-Oct-08																																									
Report Number		EXR/087954																																																					
Table Number		1																																																					

Polycyclic Aromatic Hydrocarbons GC/MS (SIM)

Customer and Site Details:	RPS Consultants: TCE Investigation		
Sample Details:	BH8S-001	Job Number:	W08_7954
LIMS ID Number:	EX0831577	Date Booked in:	12-Sep-08
QC Batch Number:	825	Date Extracted:	24-Sep-08
Quantitation File:	Initial Calibration	Date Analysed:	02-Oct-08
Directory:	1002PAH_GC8\	Matrix:	Water
Dilution:	2.5	Ext Method:	Sep. Funnel

UKAS accredited?: No

Target Compounds	CAS #	R.T. (min)	Concentration ug/l	% Fit
Naphthalene	91-20-3	3.30	0.041	75
Acenaphthylene	208-96-8	4.34	0.040	100
Acenaphthene	83-32-9	4.46	0.105	M
Fluorene	86-73-7	4.84	0.041	M
Phenanthrene	85-01-8	5.68	0.047	93
Anthracene	120-12-7	5.72	0.044	95
Fluoranthene	206-44-0	7.00	0.045	69
Pyrene	129-00-0	7.29	0.046	79
Benzo[a]anthracene	56-55-3	8.96	0.047	93
Chrysene	218-01-9	9.01	0.040	97
Benzo[b]fluoranthene	205-99-2	10.48	0.041	95
Benzo[k]fluoranthene	207-08-9	10.52	0.040	94
Benzo[a]pyrene	50-32-8	10.90	0.047	M
Indeno[1,2,3-cd]pyrene	193-39-5	12.27	0.042	90
Dibenzo[a,h]anthracene	53-70-3	12.31	0.042	93
Benzo[g,h,i]perylene	191-24-2	12.56	0.044	91
Total (USEPA16) PAHs	-	-	0.752	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	216
Acenaphthene-d10	224
Phenanthrene-d10	220
Chrysene-d12	227
Perylene-d12	235

Surrogates	% Rec
Nitrobenzene-d5	N.D
2-Fluorobiphenyl	48
Terphenyl-d14	70

The Total PAH result is the sum of non-rounded individual PAH results and therefore may differ to the sum of the rounded individual PAH results printed above. By convention, where any one or more result is a "less than", the total is expressed as a "less than" and includes the "less than" concentration within the total.

Polycyclic Aromatic Hydrocarbons GC/MS (SIM)

Customer and Site Details:	RPS Consultants: TCE Investigation		
Sample Details:	BH8S-002	Job Number:	W08_7954
LIMS ID Number:	EX0831578	Date Booked in:	12-Sep-08
QC Batch Number:	825	Date Extracted:	24-Sep-08
Quantitation File:	Initial Calibration	Date Analysed:	02-Oct-08
Directory:	1002PAH_GC8\	Matrix:	Water
Dilution:	2.5	Ext Method:	Sep. Funnel

UKAS accredited?: No

Target Compounds	CAS #	R.T. (min)	Concentration ug/l	% Fit
Naphthalene	91-20-3	3.30	0.028	M
Acenaphthylene	208-96-8	-	< 0.010	-
Acenaphthene	83-32-9	-	< 0.010	-
Fluorene	86-73-7	-	< 0.010	-
Phenanthrene	85-01-8	5.67	0.013	91
Anthracene	120-12-7	-	< 0.010	-
Fluoranthene	206-44-0	-	< 0.010	-
Pyrene	129-00-0	-	< 0.010	-
Benzo[a]anthracene	56-55-3	-	< 0.010	-
Chrysene	218-01-9	-	< 0.010	-
Benzo[b]fluoranthene	205-99-2	-	< 0.010	-
Benzo[k]fluoranthene	207-08-9	-	< 0.010	-
Benzo[a]pyrene	50-32-8	-	< 0.010	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.010	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.010	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.010	-
Total (USEPA16) PAHs	-	-	< 0.181	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	213
Acenaphthene-d10	224
Phenanthrene-d10	222
Chrysene-d12	225
Perylene-d12	232

Surrogates	% Rec
Nitrobenzene-d5	N.D
2-Fluorobiphenyl	63
Terphenyl-d14	84

The Total PAH result is the sum of non-rounded individual PAH results and therefore may differ to the sum of the rounded individual PAH results printed above. By convention, where any one or more result is a "less than", the total is expressed as a "less than" and includes the "less than" concentration within the total.

Polycyclic Aromatic Hydrocarbons GC/MS (SIM)

Customer and Site Details:	RPS Consultants: TCE Investigation		
Sample Details:	BH8F-001	Job Number:	W08_7954
LIMS ID Number:	EX0831580	Date Booked in:	12-Sep-08
QC Batch Number:	825	Date Extracted:	24-Sep-08
Quantitation File:	Initial Calibration	Date Analysed:	02-Oct-08
Directory:	1002PAH_GC8\	Matrix:	Water
Dilution:	2.5	Ext Method:	Sep. Funnel

UKAS accredited?: No

Target Compounds	CAS #	R.T. (min)	Concentration ug/l	% Fit
Naphthalene	91-20-3	-	< 0.010	-
Acenaphthylene	208-96-8	-	< 0.010	-
Acenaphthene	83-32-9	-	< 0.010	-
Fluorene	86-73-7	-	< 0.010	-
Phenanthrene	85-01-8	5.68	0.011	94
Anthracene	120-12-7	-	< 0.010	-
Fluoranthene	206-44-0	-	< 0.010	-
Pyrene	129-00-0	-	< 0.010	-
Benzo[a]anthracene	56-55-3	-	< 0.010	-
Chrysene	218-01-9	-	< 0.010	-
Benzo[b]fluoranthene	205-99-2	-	< 0.010	-
Benzo[k]fluoranthene	207-08-9	-	< 0.010	-
Benzo[a]pyrene	50-32-8	-	< 0.010	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.010	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.010	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.010	-
Total (USEPA16) PAHs	-	-	< 0.161	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	171
Acenaphthene-d10	178
Phenanthrene-d10	177
Chrysene-d12	179
Perylene-d12	182

Surrogates	% Rec
Nitrobenzene-d5	N.D
2-Fluorobiphenyl	50
Terphenyl-d14	75

The Total PAH result is the sum of non-rounded individual PAH results and therefore may differ to the sum of the rounded individual PAH results printed above. By convention, where any one or more result is a "less than", the total is expressed as a "less than" and includes the "less than" concentration within the total.

Polycyclic Aromatic Hydrocarbons GC/MS (SIM)

Customer and Site Details:	RPS Consultants: TCE Investigation		
Sample Details:	BH8F-002	Job Number:	W08_7954
LIMS ID Number:	EX0831581	Date Booked in:	12-Sep-08
QC Batch Number:	825	Date Extracted:	24-Sep-08
Quantitation File:	Initial Calibration	Date Analysed:	01-Oct-08
Directory:	0930PAH_GC8\	Matrix:	Water
Dilution:	2.5	Ext Method:	Sep. Funnel

UKAS accredited?: No

Target Compounds	CAS #	R.T. (min)	Concentration ug/l	% Fit
Naphthalene	91-20-3	3.30	0.022	M
Acenaphthylene	208-96-8	-	< 0.010	-
Acenaphthene	83-32-9	-	< 0.010	-
Fluorene	86-73-7	-	< 0.010	-
Phenanthrene	85-01-8	5.67	0.023	94
Anthracene	120-12-7	-	< 0.010	-
Fluoranthene	206-44-0	-	< 0.010	-
Pyrene	129-00-0	-	< 0.010	-
Benzo[a]anthracene	56-55-3	-	< 0.010	-
Chrysene	218-01-9	-	< 0.010	-
Benzo[b]fluoranthene	205-99-2	-	< 0.010	-
Benzo[k]fluoranthene	207-08-9	-	< 0.010	-
Benzo[a]pyrene	50-32-8	-	< 0.010	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.010	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.010	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.010	-
Total (USEPA16) PAHs	-	-	< 0.185	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	101
Acenaphthene-d10	104
Phenanthrene-d10	106
Chrysene-d12	117
Perylene-d12	116

Surrogates	% Rec
Nitrobenzene-d5	N.D
2-Fluorobiphenyl	60
Terphenyl-d14	79

The Total PAH result is the sum of non-rounded individual PAH results and therefore may differ to the sum of the rounded individual PAH results printed above. By convention, where any one or more result is a "less than", the total is expressed as a "less than" and includes the "less than" concentration within the total.

Polycyclic Aromatic Hydrocarbons GC/MS (SIM)

Customer and Site Details:	RPS Consultants: TCE Investigation		
Sample Details:	BH8F-003	Job Number:	W08_7954
LIMS ID Number:	EX0831582	Date Booked in:	12-Sep-08
QC Batch Number:	825	Date Extracted:	24-Sep-08
Quantitation File:	Initial Calibration	Date Analysed:	01-Oct-08
Directory:	0930PAH_GC8\	Matrix:	Water
Dilution:	2.5	Ext Method:	Sep. Funnel

UKAS accredited?: No

Target Compounds	CAS #	R.T. (min)	Concentration ug/l	% Fit
Naphthalene	91-20-3	-	< 0.010	-
Acenaphthylene	208-96-8	-	< 0.010	-
Acenaphthene	83-32-9	-	< 0.010	-
Fluorene	86-73-7	-	< 0.010	-
Phenanthrene	85-01-8	-	< 0.010	-
Anthracene	120-12-7	-	< 0.010	-
Fluoranthene	206-44-0	-	< 0.010	-
Pyrene	129-00-0	-	< 0.010	-
Benzo[a]anthracene	56-55-3	-	< 0.010	-
Chrysene	218-01-9	-	< 0.010	-
Benzo[b]fluoranthene	205-99-2	-	< 0.010	-
Benzo[k]fluoranthene	207-08-9	-	< 0.010	-
Benzo[a]pyrene	50-32-8	-	< 0.010	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.010	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.010	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.010	-
Total (USEPA16) PAHs	-	-	< 0.160	-

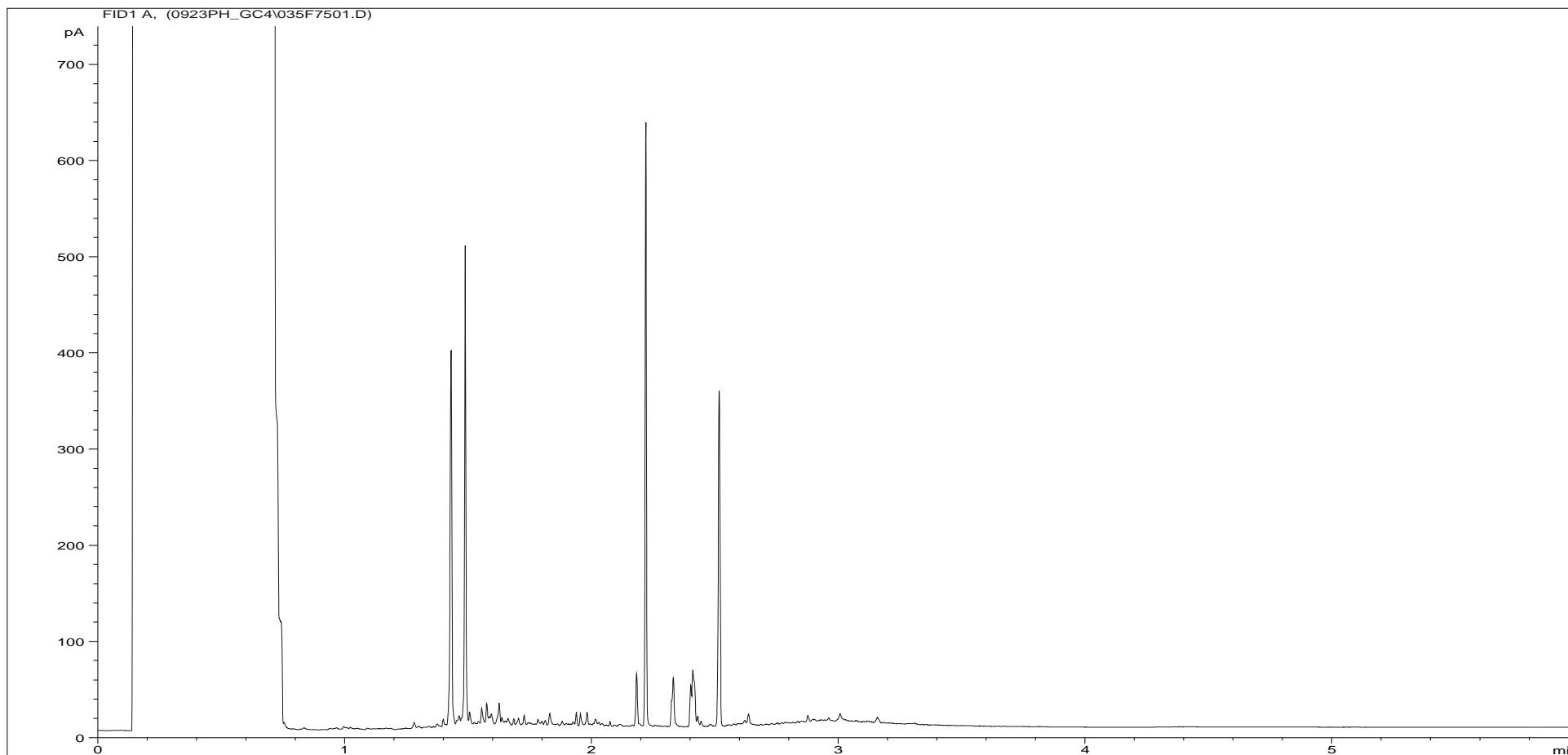
"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	113
Acenaphthene-d10	117
Phenanthrene-d10	118
Chrysene-d12	121
Perylene-d12	120

Surrogates	% Rec
Nitrobenzene-d5	N.D
2-Fluorobiphenyl	60
Terphenyl-d14	89

The Total PAH result is the sum of non-rounded individual PAH results and therefore may differ to the sum of the rounded individual PAH results printed above. By convention, where any one or more result is a "less than", the total is expressed as a "less than" and includes the "less than" concentration within the total.

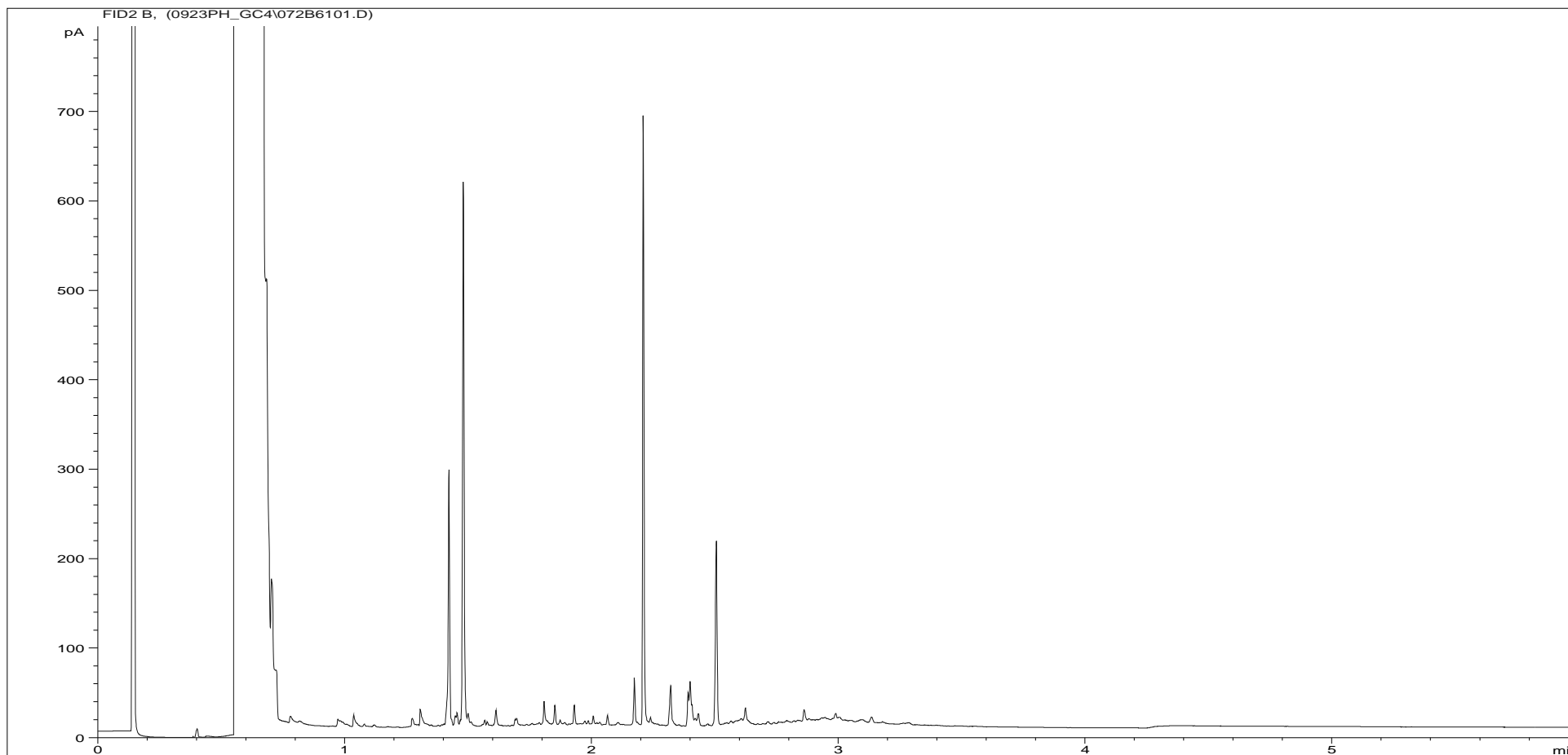
Petroleum Hydrocarbons (C8 to C40) by GC/FID



Sample ID:	EX0831577	Job Number:	W08_7954
Multiplier:	0.005	Client:	RPS Consultants
Dilution:	1	Site:	TCE Investigation
Acquisition Method:	5UL_RUNF.M	Client Sample Ref:	BH8S-001
Acquisition Date/Time:	24-Sep-08		
Datafile:	D:\TES\DATA\Y2008\0923PH_GC4\035F7501.D		

Where individual results are flagged see report notes for for status.

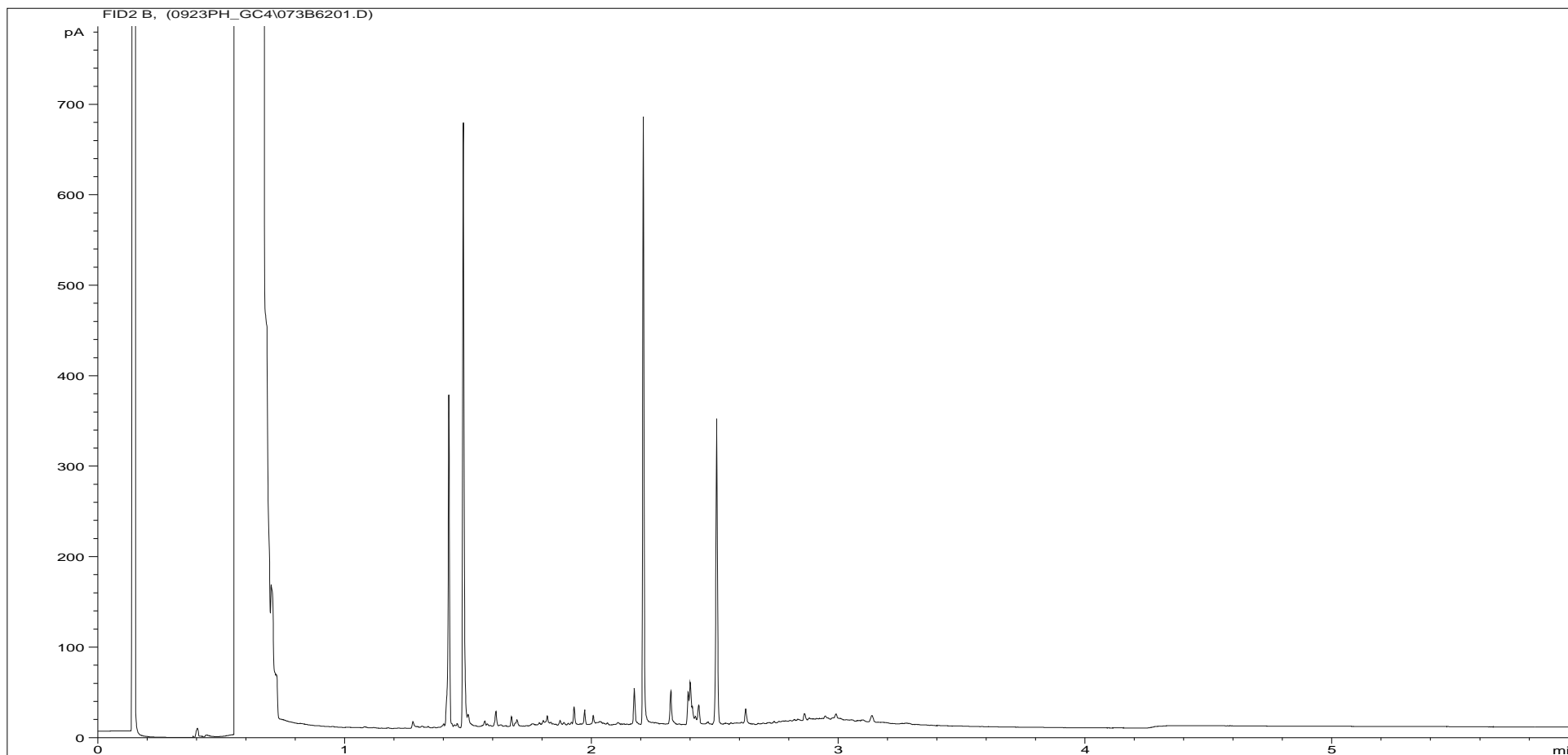
Petroleum Hydrocarbons (C8 to C40) by GC/FID



Sample ID:	EX0831578	Job Number:	W08_7954
Multiplier:	0.005	Client:	RPS Consultants
Dilution:	1	Site:	TCE Investigation
Acquisition Method:	5UL_RUNF.M	Client Sample Ref:	BH8S-002
Acquisition Date/Time:	24-Sep-08		
Datafile:	D:\TES\DATA\Y2008\0923PH_GC4\072B6101.D		

Where individual results are flagged see report notes for for status.

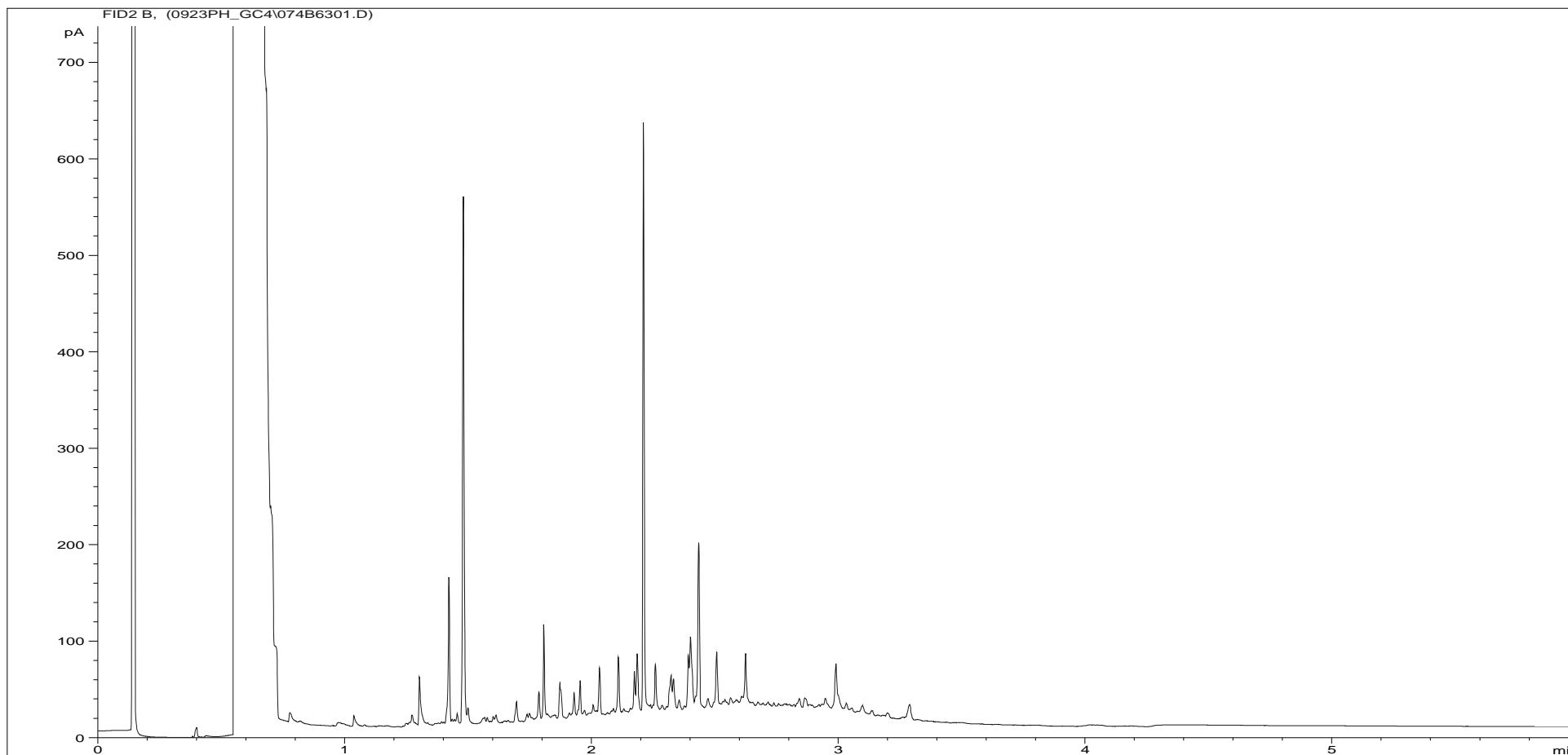
Petroleum Hydrocarbons (C8 to C40) by GC/FID



Sample ID:	EX0831580	Job Number:	W08_7954
Multiplier:	0.005	Client:	RPS Consultants
Dilution:	1	Site:	TCE Investigation
Acquisition Method:	5UL_RUNF.M	Client Sample Ref:	BH8F-001
Acquisition Date/Time:	24-Sep-08		
Datafile:	D:\TES\DATA\Y2008\0923PH_GC4\073B6201.D		

Where individual results are flagged see report notes for for status.

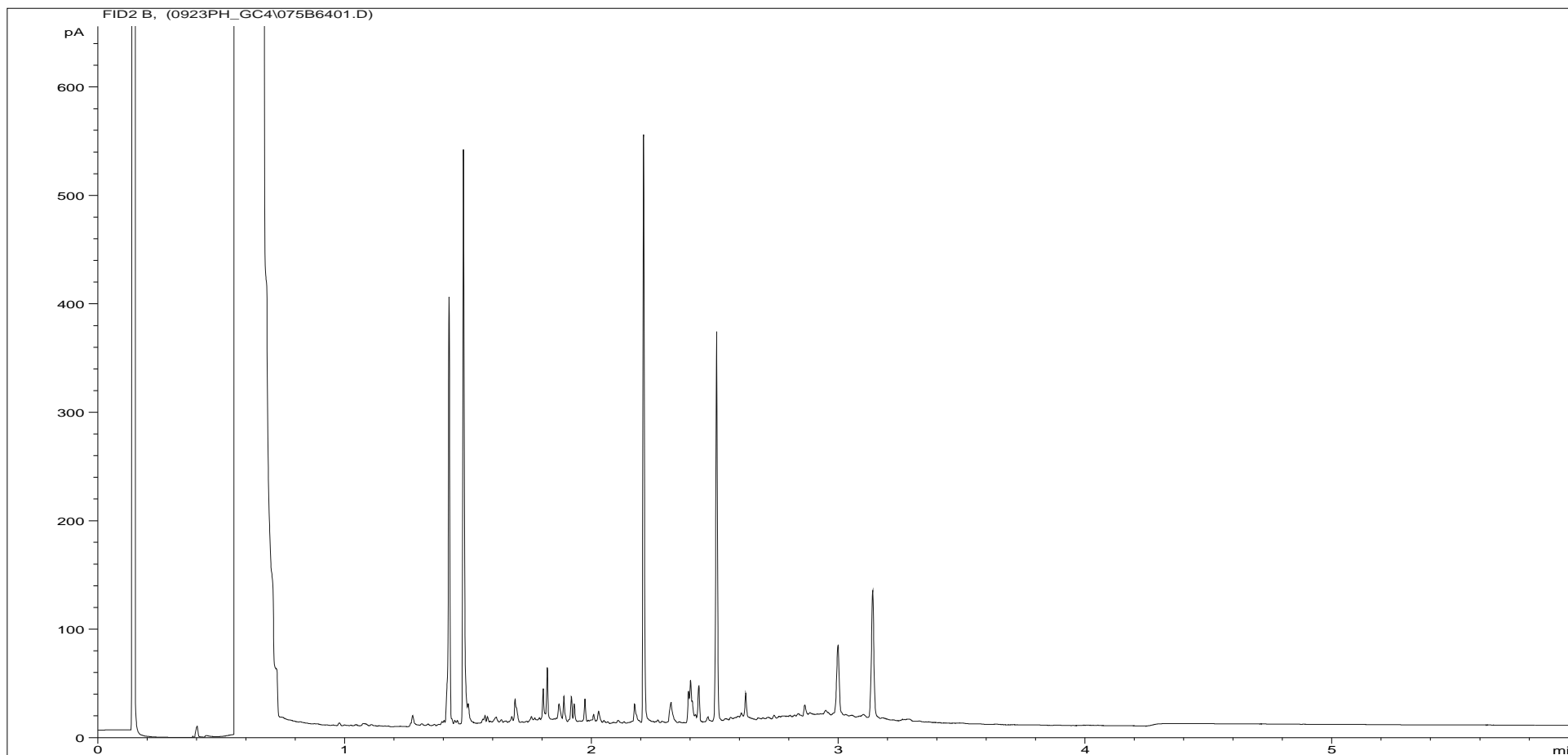
Petroleum Hydrocarbons (C8 to C40) by GC/FID



Sample ID:	EX0831581	Job Number:	W08_7954
Multiplier:	0.005	Client:	RPS Consultants
Dilution:	1	Site:	TCE Investigation
Acquisition Method:	5UL_RUNF.M	Client Sample Ref:	BH8F-002
Acquisition Date/Time:	24-Sep-08		
Datafile:	D:\TES\DATA\Y2008\0923PH_GC4\074B6301.D		

Where individual results are flagged see report notes for for status.

Petroleum Hydrocarbons (C8 to C40) by GC/FID



Sample ID:	EX0831582	Job Number:	W08_7954
Multiplier:	0.005	Client:	RPS Consultants
Dilution:	1	Site:	TCE Investigation
Acquisition Method:	5UL_RUNF.M	Client Sample Ref:	BH8F-003
Acquisition Date/Time:	24-Sep-08		
Datafile:	D:\TES\DATA\Y2008\0923PH_GC4\075B6401.D		

Where individual results are flagged see report notes for for status.

Report Notes

Soil/Solid analysis specific:

Results expressed as mg/kg on an air dried basis unless stated otherwise
S04 analysis not conducted in accordance with BS1377 unless otherwise stated
Water Soluble Sulphate on 2:1 water:soil extract
AR denotes analysis conducted on the As Received sample

Water analysis specific:

Results expressed as mg/l unless stated otherwise

Oil analysis specific:

Results expressed as mg/kg unless stated otherwise
S.G. expressed as g/cm³ @ 15°C

Filter analysis specific:

Results expressed as mg on filter unless stated otherwise

VOC analysis specific:

Explanatory notes for data flagging
U = undetected above reporting limit
J = concentration at instrument was below lowest calibration standard
E = concentration at instrument was above top calibration standard
B = compound was detected in method blank

Gas (Tedlar bag) analysis specific:

Results expressed as ug/l unless stated otherwise

Air (Carbon tube) analysis specific:

Results expressed as ug on tube unless stated otherwise

Asbestos analysis specific:

CH denotes Chrysotile
CR denotes Crocidolite
AM denotes Amosite
NADIS denotes No Asbestos Detected in Sample
NBFO denotes No Bulk fibres Observed

General notes:

^ this analysis was subcontracted to another laboratory
\$ Within laboratory tolerances
\$\$ unable to analyse due to nature of sample
¥ Results for guidance only, possible interference
& Blank corrected
I.S insufficient sample for analysis
Intf Unable to analyse due to interferences
N.D Not determined
N.R Not recorded
N.Det Not detected
Req Analysis Requested, see attached sheets for results
p Raised detection limit due to nature of sample
* denotes that all accreditation has been removed by the laboratory for this result.
‡ denotes that Mcerts accreditation has been removed by the laboratory for this result.
Note: The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected.

If you require further details of the circumstances leading to the removal of the accreditation from any data item please do not hesitate to contact the laboratory

END OF REPORT

TES Report No. EXR/088248 (Ver. 1)

RPS Consultants
Park House
Greyfriars Road
Cardiff
CF10 3AF

Site: TCE Investigation

The 4 samples described in this report were logged for analysis by TES Bretby on 22-Sep-2008.
The analysis was completed by: 09-Oct-2008

Tests where the accreditation is set to N or No, and any individual data items marked with a * are not UKAS accredited
Any opinions or interpretations expressed herein are outside the scope of any UKAS accreditation held by TES Bretby Laboratories.

The following tables are contained in this report:

Table 1 Main Analysis Results (Pages 2 to 4)
Table of GRO Results (Page 5)
Table of PAH (MS-SIM) (10) Results (Pages 6 to 9)
Table of TPH (Si) banding (0.01) (Page 10)
GC-FID Chromatograms (Pages 11 to 18)
Table of VOC (HSA) Results (Pages 19 to 31)
Table of VOC (Tics) Results (Pages 32 to 44)
Table of Report Notes (Page 45)

On behalf of
TES Bretby :
J Elstub




Project Co-ordinator

Date of Issue: 09-Oct-2008

Tests marked 'A' have been subcontracted to another laboratory.

TES Bretby accepts no responsibility for any sampling not carried out by our personnel.

Where individual results are flagged see report notes for for status.

			Units :	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	ug/l	mg/l	ug/l	mg/l	mg/l	mg/l	mg/l		
			Method Codes :	CPWATVAR	ICPMSW	ICPMSW	KONENS	KONENS	KONENS	KONENS	WSLM11	WSLM13	VOCSWHSA	CPWATVAR	PAHSWSIM	CPWATVAR	WSLM20	GROHSA	TPHFD	
			Method Reporting Limits :	0.01	0.0001	0.001	0.01	0.01	0.2	0.01	5	0.1	1	0.01	0.01	0.01	2	0.1	0.01	
			UKAS Accredited :	yes	yes	yes	yes	yes	yes	yes	yes	yes	no	no	no	no	no	no	no	no
TES ID Number EV	Client Sample Description	Sample Date	Boron as B (Dissolved) a	Mercury as Hg (Dissolved)	Selenium as Se (Dissolved)	Ammoniacal Nitrogen as N	Nitrite as N	Nitrate as N	Phosphate as P	Chemical Oxygen Demand	Total Organic Carbon	Volatile Organic Compounds	Barium as Ba (Dissolved) a	PAH MS-SIM (16)	Beryllium as Be (Dissolved) a	Biochemical Oxygen Demand	GRO-HSA (A)	TPH GC (0.01)		
0832764	BH8S-001	17-Sep-08	0.32	<0.0001	0.002	0.22	0.02	<0.2	<0.01		4.4		0.06	Req	>0.01			0.04		
0832765	BH8S-002	17-Sep-08	0.50	<0.0001	0.002	1.4	<0.01	<0.2	<0.01		5.1		0.08	Req	>0.01			0.06		
0832766	BH8F-002	17-Sep-08	0.42	<0.0001	0.001	1.1	<0.01	<0.2	<0.01		4.5		0.04	Req	<0.01			0.1		
0832767	BH8F-003	17-Sep-08	0.57	<0.0001	0.005	0.16	0.06	1.4	0.07		7.2		0.06	Req	<0.01			0.04		
TES Bretby PO Box 100, Bretby Business Park, Burton-on-Trent, Staffordshire, DE15 0XD Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422			Client Name RPS Consultants Contact Mr G Moore	TCE Investigation								Water Sample Analysis								
											Date Printed		09-Oct-08							
											Report Number		EXR/088248							
											Table Number		1							

Polycyclic Aromatic Hydrocarbons GC/MS (SIM)

Customer and Site Details:	RPS Consultants: TCE Investigation		
Sample Details:	BH8S-001	Job Number:	W08_8248
LIMS ID Number:	EX0832764	Date Booked in:	22-Sep-08
QC Batch Number:	0859	Date Extracted:	06-Oct-08
Quantitation File:	Initial Calibration	Date Analysed:	06-Oct-08
Directory:	006PAH_MS14\	Matrix:	Water
Dilution:	2.5	Ext Method:	Sep. Funnel

UKAS accredited?: No

Target Compounds	CAS #	R.T. (min)	Concentration ug/l	% Fit
Naphthalene	91-20-3	-	< 0.010	-
Acenaphthylene	208-96-8	-	< 0.010	-
Acenaphthene	83-32-9	-	< 0.010	-
Fluorene	86-73-7	-	< 0.010	-
Phenanthrene	85-01-8	-	< 0.010	-
Anthracene	120-12-7	-	< 0.010	-
Fluoranthene	206-44-0	-	< 0.010	-
Pyrene	129-00-0	-	< 0.010	-
Benzo[a]anthracene	56-55-3	-	< 0.010	-
Chrysene	218-01-9	-	< 0.010	-
Benzo[b]fluoranthene	205-99-2	-	< 0.010	-
Benzo[k]fluoranthene	207-08-9	-	< 0.010	-
Benzo[a]pyrene	50-32-8	-	< 0.010	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.010	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.010	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.010	-
Total (USEPA16) PAHs	-	-	< 0.160	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	105
Acenaphthene-d10	102
Phenanthrene-d10	101
Chrysene-d12	102
Perylene-d12	90

Surrogates	% Rec
Nitrobenzene-d5	N.D
2-Fluorobiphenyl	53
Terphenyl-d14	86

The Total PAH result is the sum of non-rounded individual PAH results and therefore may differ to the sum of the rounded individual PAH results printed above. By convention, where any one or more result is a "less than", the total is expressed as a "less than" and includes the "less than" concentration within the total.

Polycyclic Aromatic Hydrocarbons GC/MS (SIM)

Customer and Site Details:	RPS Consultants: TCE Investigation		
Sample Details:	BH8S-002	Job Number:	W08_8248
LIMS ID Number:	EX0832765	Date Booked in:	22-Sep-08
QC Batch Number:	0859	Date Extracted:	06-Oct-08
Quantitation File:	Initial Calibration	Date Analysed:	06-Oct-08
Directory:	006PAH_MS14\	Matrix:	Water
Dilution:	2.5	Ext Method:	Sep. Funnel

UKAS accredited?: No

Target Compounds	CAS #	R.T. (min)	Concentration ug/l	% Fit
Naphthalene	91-20-3	-	< 0.010	-
Acenaphthylene	208-96-8	-	< 0.010	-
Acenaphthene	83-32-9	-	< 0.010	-
Fluorene	86-73-7	-	< 0.010	-
Phenanthrene	85-01-8	-	< 0.010	-
Anthracene	120-12-7	-	< 0.010	-
Fluoranthene	206-44-0	-	< 0.010	-
Pyrene	129-00-0	-	< 0.010	-
Benzo[a]anthracene	56-55-3	-	< 0.010	-
Chrysene	218-01-9	-	< 0.010	-
Benzo[b]fluoranthene	205-99-2	-	< 0.010	-
Benzo[k]fluoranthene	207-08-9	-	< 0.010	-
Benzo[a]pyrene	50-32-8	-	< 0.010	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.010	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.010	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.010	-
Total (USEPA16) PAHs	-	-	< 0.160	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	91
Acenaphthene-d10	88
Phenanthrene-d10	89
Chrysene-d12	88
Perylene-d12	76

Surrogates	% Rec
Nitrobenzene-d5	N.D
2-Fluorobiphenyl	37
Terphenyl-d14	46

The Total PAH result is the sum of non-rounded individual PAH results and therefore may differ to the sum of the rounded individual PAH results printed above. By convention, where any one or more result is a "less than", the total is expressed as a "less than" and includes the "less than" concentration within the total.

Polycyclic Aromatic Hydrocarbons GC/MS (SIM)

Customer and Site Details:	RPS Consultants: TCE Investigation		
Sample Details:	BH8F-002	Job Number:	W08_8248
LIMS ID Number:	EX0832766	Date Booked in:	22-Sep-08
QC Batch Number:	0859	Date Extracted:	06-Oct-08
Quantitation File:	Initial Calibration	Date Analysed:	06-Oct-08
Directory:	006PAH_MS14\	Matrix:	Water
Dilution:	2.5	Ext Method:	Sep. Funnel

UKAS accredited?: No

Target Compounds	CAS #	R.T. (min)	Concentration ug/l	% Fit
Naphthalene	91-20-3	3.44	0.018	87
Acenaphthylene	208-96-8	-	< 0.010	-
Acenaphthene	83-32-9	-	< 0.010	-
Fluorene	86-73-7	-	< 0.010	-
Phenanthrene	85-01-8	5.86	0.013	92
Anthracene	120-12-7	-	< 0.010	-
Fluoranthene	206-44-0	-	< 0.010	-
Pyrene	129-00-0	-	< 0.010	-
Benzo[a]anthracene	56-55-3	-	< 0.010	-
Chrysene	218-01-9	-	< 0.010	-
Benzo[b]fluoranthene	205-99-2	-	< 0.010	-
Benzo[k]fluoranthene	207-08-9	-	< 0.010	-
Benzo[a]pyrene	50-32-8	-	< 0.010	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.010	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.010	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.010	-
Total (USEPA16) PAHs	-	-	< 0.171	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	90
Acenaphthene-d10	89
Phenanthrene-d10	89
Chrysene-d12	86
Perylene-d12	73

Surrogates	% Rec
Nitrobenzene-d5	N.D
2-Fluorobiphenyl	38
Terphenyl-d14	44

The Total PAH result is the sum of non-rounded individual PAH results and therefore may differ to the sum of the rounded individual PAH results printed above. By convention, where any one or more result is a "less than", the total is expressed as a "less than" and includes the "less than" concentration within the total.

Polycyclic Aromatic Hydrocarbons GC/MS (SIM)

Customer and Site Details:	RPS Consultants: TCE Investigation		
Sample Details:	BH8F-003	Job Number:	W08_8248
LIMS ID Number:	EX0832767	Date Booked in:	22-Sep-08
QC Batch Number:	0859	Date Extracted:	06-Oct-08
Quantitation File:	Initial Calibration	Date Analysed:	06-Oct-08
Directory:	006PAH_MS14\	Matrix:	Water
Dilution:	2.5	Ext Method:	Sep. Funnel

UKAS accredited?: No

Target Compounds	CAS #	R.T. (min)	Concentration ug/l	% Fit
Naphthalene	91-20-3	-	< 0.010	-
Acenaphthylene	208-96-8	-	< 0.010	-
Acenaphthene	83-32-9	-	< 0.010	-
Fluorene	86-73-7	-	< 0.010	-
Phenanthrene	85-01-8	-	< 0.010	-
Anthracene	120-12-7	-	< 0.010	-
Fluoranthene	206-44-0	-	< 0.010	-
Pyrene	129-00-0	-	< 0.010	-
Benzo[a]anthracene	56-55-3	-	< 0.010	-
Chrysene	218-01-9	-	< 0.010	-
Benzo[b]fluoranthene	205-99-2	-	< 0.010	-
Benzo[k]fluoranthene	207-08-9	-	< 0.010	-
Benzo[a]pyrene	50-32-8	-	< 0.010	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.010	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.010	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.010	-
Total (USEPA16) PAHs	-	-	< 0.160	-

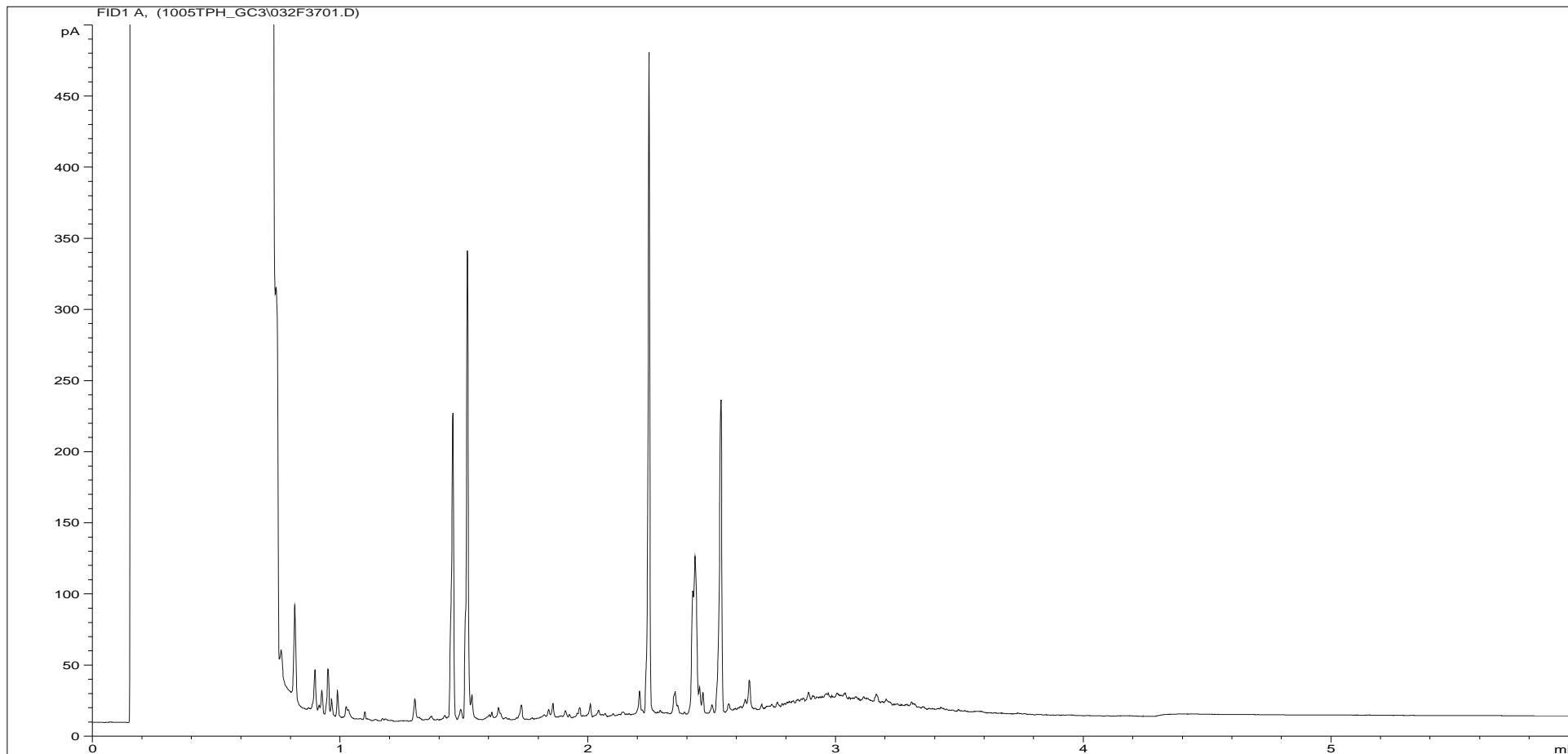
"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	91
Acenaphthene-d10	90
Phenanthrene-d10	89
Chrysene-d12	90
Perylene-d12	78

Surrogates	% Rec
Nitrobenzene-d5	N.D
2-Fluorobiphenyl	47
Terphenyl-d14	57

The Total PAH result is the sum of non-rounded individual PAH results and therefore may differ to the sum of the rounded individual PAH results printed above. By convention, where any one or more result is a "less than", the total is expressed as a "less than" and includes the "less than" concentration within the total.

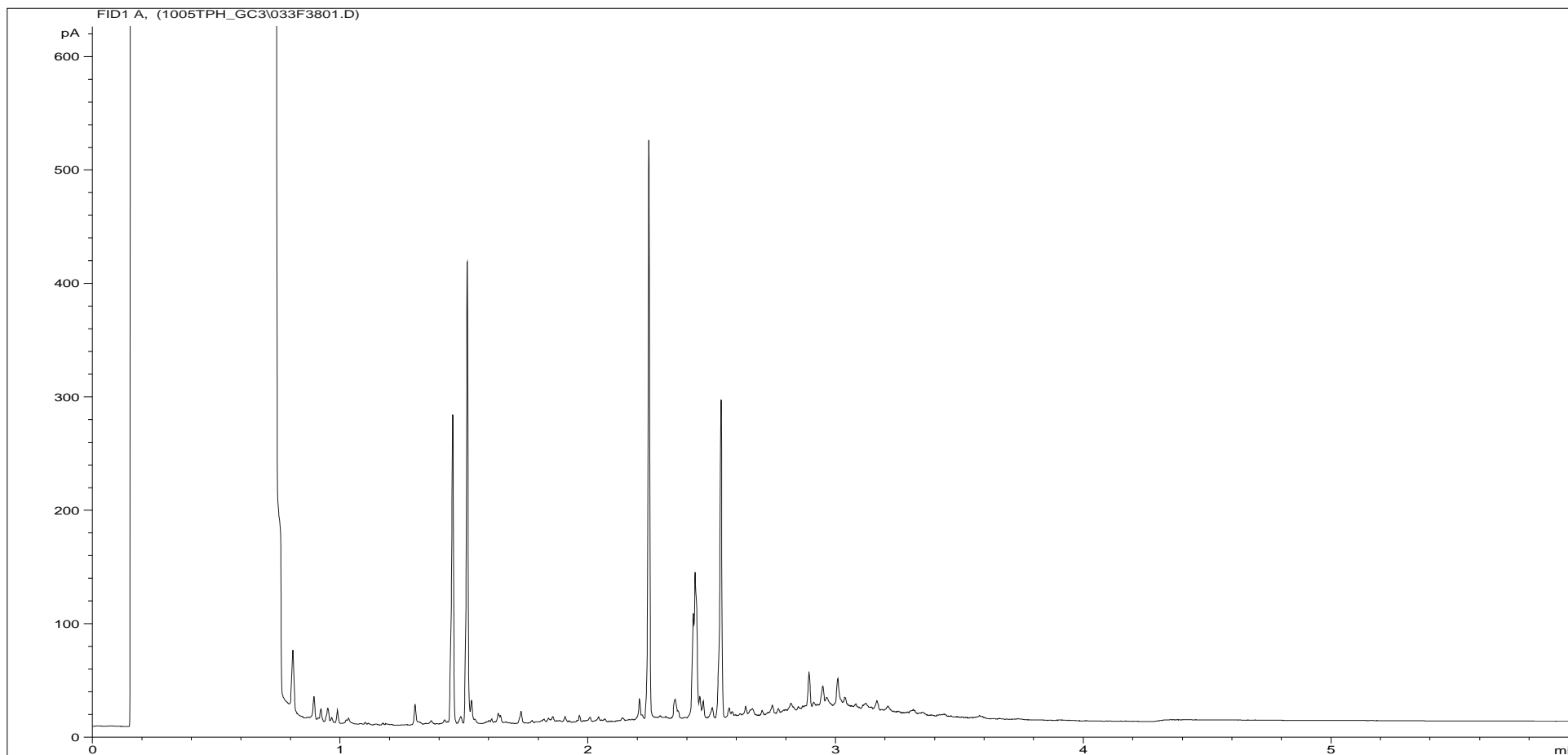
Petroleum Hydrocarbons (C8 to C40) by GC/FID



Sample ID:	EX0832764	Job Number:	W08_8248
Multiplier:	0.0076	Client:	RPS Consultants
Dilution:	1	Site:	TCE Investigation
Acquisition Method:	5UL_RUNF.M	Client Sample Ref:	BH8S-001
Acquisition Date/Time:	05-Oct-08		
Datafile:	D:\TES\DATA\Y2008\1005TPH_GC3\032F3701.D		

Where individual results are flagged see report notes for for status.

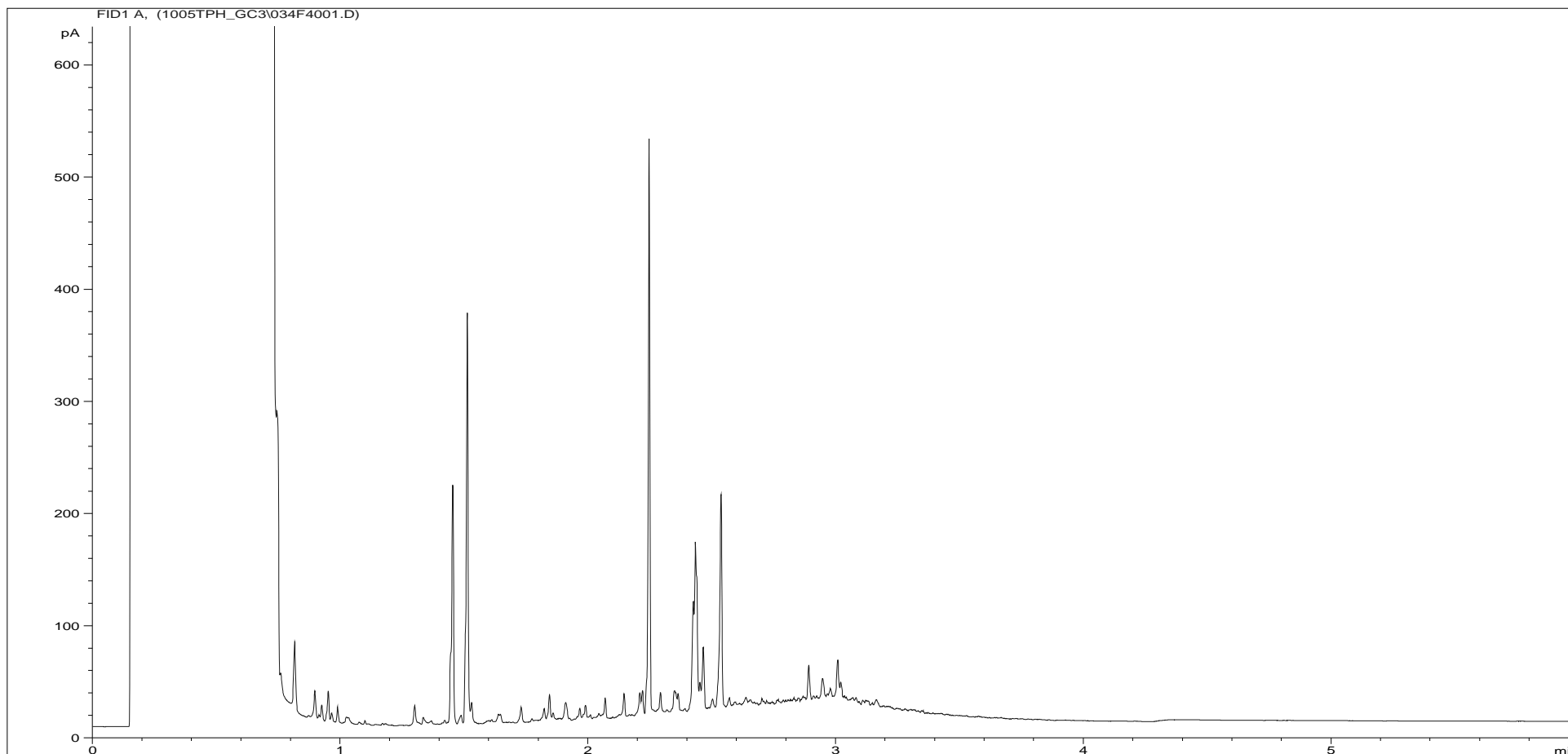
Petroleum Hydrocarbons (C8 to C40) by GC/FID



Sample ID:	EX0832765	Job Number:	W08_8248
Multiplier:	0.0083	Client:	RPS Consultants
Dilution:	1	Site:	TCE Investigation
Acquisition Method:	5UL_RUNF.M	Client Sample Ref:	BH8S-002
Acquisition Date/Time:	05-Oct-08		
Datafile:	D:\TES\DATA\Y2008\1005TPH_GC3\033F3801.D		

Where individual results are flagged see report notes for for status.

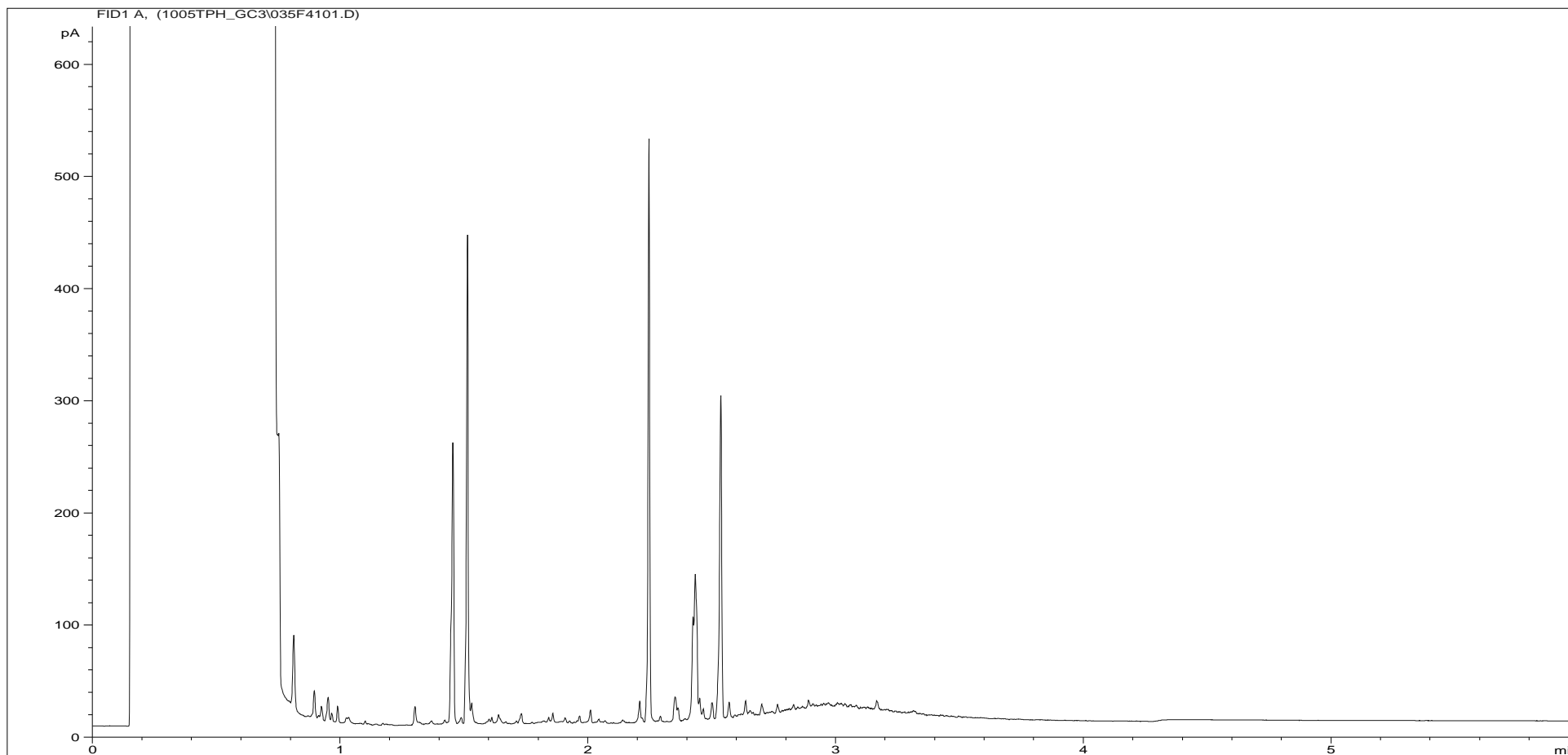
Petroleum Hydrocarbons (C8 to C40) by GC/FID



Sample ID:	EX0832766	Job Number:	W08_8248
Multiplier:	0.0083	Client:	RPS Consultants
Dilution:	1	Site:	TCE Investigation
Acquisition Method:	5UL_RUNF.M	Client Sample Ref:	BH8F-002
Acquisition Date/Time:	05-Oct-08		
Datafile:	D:\TES\DATA\Y2008\1005TPH_GC3\034F4001.D		

Where individual results are flagged see report notes for for status.

Petroleum Hydrocarbons (C8 to C40) by GC/FID



Sample ID:	EX0832767	Job Number:	W08_8248
Multiplier:	0.0076	Client:	RPS Consultants
Dilution:	1	Site:	TCE Investigation
Acquisition Method:	5UL_RUNF.M	Client Sample Ref:	BH8F-003
Acquisition Date/Time:	05-Oct-08		
Datafile:	D:\TES\DATA\Y2008\1005TPH_GC3\035F4101.D		

Where individual results are flagged see report notes for for status.

Report Notes

Soil/Solid analysis specific:

Results expressed as mg/kg on an air dried basis unless stated otherwise
S04 analysis not conducted in accordance with BS1377 unless otherwise stated
Water Soluble Sulphate on 2:1 water:soil extract
AR denotes analysis conducted on the As Received sample

Water analysis specific:

Results expressed as mg/l unless stated otherwise

Oil analysis specific:

Results expressed as mg/kg unless stated otherwise
S.G. expressed as g/cm³ @ 15°C

Filter analysis specific:

Results expressed as mg on filter unless stated otherwise

VOC analysis specific:

Explanatory notes for data flagging
U = undetected above reporting limit
J = concentration at instrument was below lowest calibration standard
E = concentration at instrument was above top calibration standard
B = compound was detected in method blank

Gas (Tedlar bag) analysis specific:

Results expressed as ug/l unless stated otherwise

Air (Carbon tube) analysis specific:

Results expressed as ug on tube unless stated otherwise

Asbestos analysis specific:

CH denotes Chrysotile
CR denotes Crocidolite
AM denotes Amosite
NADIS denotes No Asbestos Detected in Sample
NBFO denotes No Bulk fibres Observed

General notes:

^ this analysis was subcontracted to another laboratory
\$ Within laboratory tolerances
\$\$ unable to analyse due to nature of sample
¥ Results for guidance only, possible interference
& Blank corrected
I.S insufficient sample for analysis
Intf Unable to analyse due to interferences
N.D Not determined
N.R Not recorded
N.Det Not detected
Req Analysis Requested, see attached sheets for results
p Raised detection limit due to nature of sample
* denotes that all accreditation has been removed by the laboratory for this result.
‡ denotes that Mcerts accreditation has been removed by the laboratory for this result.
Note: The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected.

If you require further details of the circumstances leading to the removal of the accreditation from any data item please do not hesitate to contact the laboratory

END OF REPORT



TEST REPORT

WATER SAMPLE ANALYSIS



TES Report No. EXR/088252 (Ver. 1)

RPS Consultants
Park House
Greyfriars Road
Cardiff
CF10 3AF

Site: 8S8F Investigation

The 1 sample described in this report was logged for analysis by TES Bretby on 22-Sep-2008.
The analysis was completed by: 09-Oct-2008

Tests where the accreditation is set to N or No, and any individual data items marked with a * are not UKAS accredited
Any opinions or interpretations expressed herein are outside the scope of any UKAS accreditation held by TES Bretby Laboratories.

The following tables are contained in this report:

Table 1 Main Analysis Results (Pages 2 to 4)
Table of GRO Results (Page 5)
Table of PAH (MS-SIM) (10) Results (Page 6)
Table of TPH (Si) banding (0.01) (Page 7)
GC-FID Chromatograms (Pages 8 to 10)
Table of VOC (HSA) Results (Pages 11 to 27)
Table of VOC (Tics) Results (Pages 28 to 44)
Table of Report Notes (Page 45)

On behalf of
TES Bretby :
J Elstub



Project Co-ordinator

Date of Issue: 09-Oct-2008

Tests marked 'A' have been subcontracted to another laboratory.

TES Bretby accepts no responsibility for any sampling not carried out by our personnel.

Where individual results are flagged see report notes for for status.

Polycyclic Aromatic Hydrocarbons GC/MS (SIM)

Customer and Site Details:	RPS Consultants: TCE Investigation		
Sample Details:	BH8F-001	Job Number:	W08_8252
LIMS ID Number:	EX0832812	Date Booked in:	22-Sep-08
QC Batch Number:	3419	Date Extracted:	29-Sep-08
Quantitation File:	Initial Calibration	Date Analysed:	07-Oct-08
Directory:	006PAH_MS14\	Matrix:	Water
Dilution:	2.5	Ext Method:	Sep. Funnel

UKAS accredited?: No

Target Compounds	CAS #	R.T. (min)	Concentration ug/l	% Fit
Naphthalene	91-20-3	-	< 0.010	-
Acenaphthylene	208-96-8	-	< 0.010	-
Acenaphthene	83-32-9	-	< 0.010	-
Fluorene	86-73-7	-	< 0.010	-
Phenanthrene	85-01-8	-	< 0.010	-
Anthracene	120-12-7	-	< 0.010	-
Fluoranthene	206-44-0	-	< 0.010	-
Pyrene	129-00-0	-	< 0.010	-
Benzo[a]anthracene	56-55-3	-	< 0.010	-
Chrysene	218-01-9	-	< 0.010	-
Benzo[b]fluoranthene	205-99-2	-	< 0.010	-
Benzo[k]fluoranthene	207-08-9	-	< 0.010	-
Benzo[a]pyrene	50-32-8	-	< 0.010	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.010	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.010	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.010	-
Total (USEPA16) PAHs	-	-	< 0.160	-

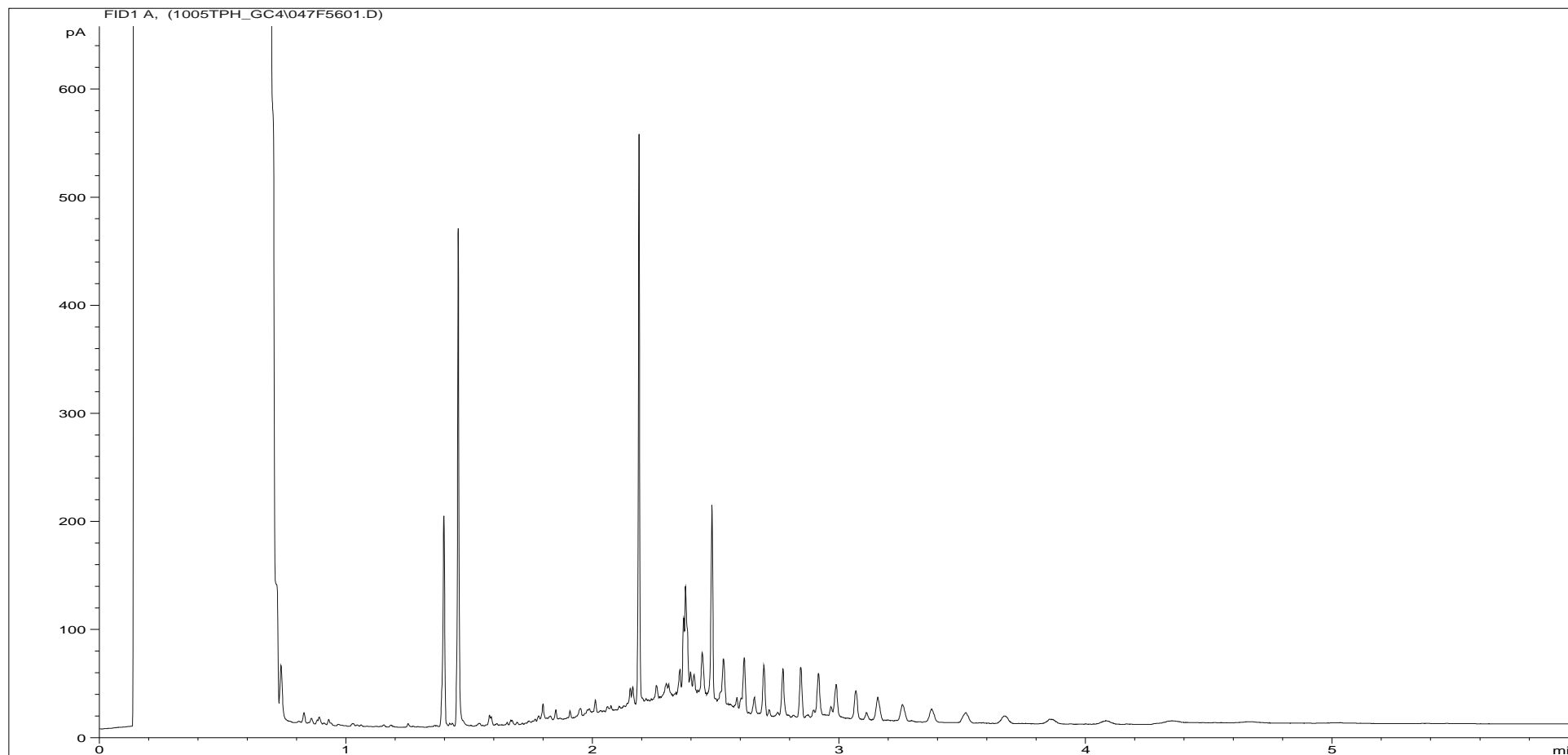
"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	87
Acenaphthene-d10	86
Phenanthrene-d10	86
Chrysene-d12	88
Perylene-d12	75

Surrogates	% Rec
Nitrobenzene-d5	N.D
2-Fluorobiphenyl	54
Terphenyl-d14	64

The Total PAH result is the sum of non-rounded individual PAH results and therefore may differ to the sum of the rounded individual PAH results printed above. By convention, where any one or more result is a "less than", the total is expressed as a "less than" and includes the "less than" concentration within the total.

Petroleum Hydrocarbons (C8 to C40) by GC/FID



Sample ID:	EX0832812	Job Number:	W08_8252
Multiplier:	0.0076	Client:	RPS Consultants
Dilution:	1	Site:	TCE Investigation
Acquisition Method:	5UL_RUNF.M	Client Sample Ref:	BH8F-001
Acquisition Date/Time:	06-Oct-08		
Datafile:	D:\TES\DATA\Y2008\1005TPH_GC4\047F5601.D		

Where individual results are flagged see report notes for for status.

Report Notes

Soil/Solid analysis specific:

Results expressed as mg/kg on an air dried basis unless stated otherwise
S04 analysis not conducted in accordance with BS1377 unless otherwise stated
Water Soluble Sulphate on 2:1 water:soil extract
AR denotes analysis conducted on the As Received sample

Water analysis specific:

Results expressed as mg/l unless stated otherwise

Oil analysis specific:

Results expressed as mg/kg unless stated otherwise
S.G. expressed as g/cm³ @ 15°C

Filter analysis specific:

Results expressed as mg on filter unless stated otherwise

VOC analysis specific:

Explanatory notes for data flagging
U = undetected above reporting limit
J = concentration at instrument was below lowest calibration standard
E = concentration at instrument was above top calibration standard
B = compound was detected in method blank

Gas (Tedlar bag) analysis specific:

Results expressed as ug/l unless stated otherwise

Air (Carbon tube) analysis specific:

Results expressed as ug on tube unless stated otherwise

Asbestos analysis specific:

CH denotes Chrysotile
CR denotes Crocidolite
AM denotes Amosite
NADIS denotes No Asbestos Detected in Sample
NBFO denotes No Bulk fibres Observed

General notes:

^ this analysis was subcontracted to another laboratory
\$ Within laboratory tolerances
\$\$ unable to analyse due to nature of sample
¥ Results for guidance only, possible interference
& Blank corrected
I.S insufficient sample for analysis
Intf Unable to analyse due to interferences
N.D Not determined
N.R Not recorded
N.Det Not detected
Req Analysis Requested, see attached sheets for results
p Raised detection limit due to nature of sample
***** denotes that all accreditation has been removed by the laboratory for this result.
‡ denotes that Mcerts accreditation has been removed by the laboratory for this result.
Note: The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected.

If you require further details of the circumstances leading to the removal of the accreditation from any data item please do not hesitate to contact the laboratory

END OF REPORT



TEST REPORT

WATER SAMPLE ANALYSIS



TES Report No. EXR/088722 (Ver. 1)

RPS Consultants
Park House
Greyfriars Road
Cardiff
CF10 3AF

Site: AWE Burghfield

The 4 samples described in this report were logged for analysis by TES Bretby on 07-Oct-2008.
The analysis was completed by: 21-Oct-2008

Tests where the accreditation is set to N or No, and any individual data items marked with a * are not UKAS accredited
Any opinions or interpretations expressed herein are outside the scope of any UKAS accreditation held by TES Bretby Laboratories.

The following tables are contained in this report:

Table 1 Main Analysis Results (Pages 2 to 3)
Table of PAH (MS-SIM) (10) Results (Pages 4 to 7)
GC-FID Chromatograms (Pages 8 to 11)
Table of Report Notes (Page 12)

On behalf of
TES Bretby :
J Elstub


Project Co-ordinator

Date of Issue: 21-Oct-2008

Tests marked '^' have been subcontracted to another laboratory.

TES Bretby accepts no responsibility for any sampling not carried out by our personnel.

Where individual results are flagged see report notes for for status.

Polycyclic Aromatic Hydrocarbons GC/MS (SIM)

Customer and Site Details:	RPS Consultants: AWE Burghfield		
Sample Details:	BH8F-003	Job Number:	W08_8722
LIMS ID Number:	EX0834584	Date Booked in:	07-Oct-08
QC Batch Number:	902	Date Extracted:	17-Oct-08
Quantitation File:	Initial Calibration	Date Analysed:	18-Oct-08
Directory:	017PAH_GC11\	Matrix:	Water
Dilution:	2.5	Ext Method:	Sep. Funnel

UKAS accredited?: No

Target Compounds	CAS #	R.T. (min)	Concentration ug/l	% Fit
Naphthalene	91-20-3	-	< 0.010	-
Acenaphthylene	208-96-8	-	< 0.010	-
Acenaphthene	83-32-9	-	< 0.010	-
Fluorene	86-73-7	-	< 0.010	-
Phenanthrene	85-01-8	-	< 0.010	-
Anthracene	120-12-7	-	< 0.010	-
Fluoranthene	206-44-0	-	< 0.010	-
Pyrene	129-00-0	-	< 0.010	-
Benzo[a]anthracene	56-55-3	-	< 0.010	-
Chrysene	218-01-9	-	< 0.010	-
Benzo[b]fluoranthene	205-99-2	-	< 0.010	-
Benzo[k]fluoranthene	207-08-9	-	< 0.010	-
Benzo[a]pyrene	50-32-8	-	< 0.010	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.010	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.010	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.010	-
Total (USEPA16) PAHs	-	-	< 0.160	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	114
Acenaphthene-d10	113
Phenanthrene-d10	111
Chrysene-d12	123
Perylene-d12	135

Surrogates	% Rec
Nitrobenzene-d5	N.D
2-Fluorobiphenyl	60
Terphenyl-d14	76

The Total PAH result is the sum of non-rounded individual PAH results and therefore may differ to the sum of the rounded individual PAH results printed above. By convention, where any one or more result is a "less than", the total is expressed as a "less than" and includes the "less than" concentration within the total.

Polycyclic Aromatic Hydrocarbons GC/MS (SIM)

Customer and Site Details:	RPS Consultants: AWE Burghfield		
Sample Details:	BH8F-002	Job Number:	W08_8722
LIMS ID Number:	EX0834585	Date Booked in:	07-Oct-08
QC Batch Number:	902	Date Extracted:	17-Oct-08
Quantitation File:	Initial Calibration	Date Analysed:	18-Oct-08
Directory:	017PAH_GC11\	Matrix:	Water
Dilution:	2.5	Ext Method:	Sep. Funnel

UKAS accredited?: No

Target Compounds	CAS #	R.T. (min)	Concentration ug/l	% Fit
Naphthalene	91-20-3	3.18	0.027	M
Acenaphthylene	208-96-8	-	< 0.010	-
Acenaphthene	83-32-9	4.34	0.010	M
Fluorene	86-73-7	-	< 0.010	-
Phenanthrene	85-01-8	-	< 0.010	-
Anthracene	120-12-7	-	< 0.010	-
Fluoranthene	206-44-0	-	< 0.010	-
Pyrene	129-00-0	-	< 0.010	-
Benzo[a]anthracene	56-55-3	-	< 0.010	-
Chrysene	218-01-9	-	< 0.010	-
Benzo[b]fluoranthene	205-99-2	-	< 0.010	-
Benzo[k]fluoranthene	207-08-9	-	< 0.010	-
Benzo[a]pyrene	50-32-8	-	< 0.010	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.010	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.010	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.010	-
Total (USEPA16) PAHs	-	-	< 0.177	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	104
Acenaphthene-d10	103
Phenanthrene-d10	103
Chrysene-d12	120
Perylene-d12	132

Surrogates	% Rec
Nitrobenzene-d5	N.D
2-Fluorobiphenyl	57
Terphenyl-d14	73

The Total PAH result is the sum of non-rounded individual PAH results and therefore may differ to the sum of the rounded individual PAH results printed above. By convention, where any one or more result is a "less than", the total is expressed as a "less than" and includes the "less than" concentration within the total.

Polycyclic Aromatic Hydrocarbons GC/MS (SIM)

Customer and Site Details:	RPS Consultants: AWE Burghfield		
Sample Details:	BH8S-001	Job Number:	W08_8722
LIMS ID Number:	EX0834586	Date Booked in:	07-Oct-08
QC Batch Number:	902	Date Extracted:	17-Oct-08
Quantitation File:	Initial Calibration	Date Analysed:	18-Oct-08
Directory:	017PAH_GC11\	Matrix:	Water
Dilution:	2.5	Ext Method:	Sep. Funnel

UKAS accredited?: No

Target Compounds	CAS #	R.T. (min)	Concentration ug/l	% Fit
Naphthalene	91-20-3	-	< 0.010	-
Acenaphthylene	208-96-8	-	< 0.010	-
Acenaphthene	83-32-9	-	< 0.010	-
Fluorene	86-73-7	-	< 0.010	-
Phenanthrene	85-01-8	-	< 0.010	-
Anthracene	120-12-7	-	< 0.010	-
Fluoranthene	206-44-0	-	< 0.010	-
Pyrene	129-00-0	-	< 0.010	-
Benzo[a]anthracene	56-55-3	-	< 0.010	-
Chrysene	218-01-9	-	< 0.010	-
Benzo[b]fluoranthene	205-99-2	-	< 0.010	-
Benzo[k]fluoranthene	207-08-9	-	< 0.010	-
Benzo[a]pyrene	50-32-8	-	< 0.010	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.010	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.010	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.010	-
Total (USEPA16) PAHs	-	-	< 0.160	-

"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	104
Acenaphthene-d10	104
Phenanthrene-d10	101
Chrysene-d12	112
Perylene-d12	120

Surrogates	% Rec
Nitrobenzene-d5	N.D
2-Fluorobiphenyl	64
Terphenyl-d14	79

The Total PAH result is the sum of non-rounded individual PAH results and therefore may differ to the sum of the rounded individual PAH results printed above. By convention, where any one or more result is a "less than", the total is expressed as a "less than" and includes the "less than" concentration within the total.

Polycyclic Aromatic Hydrocarbons GC/MS (SIM)

Customer and Site Details:	RPS Consultants: AWE Burghfield		
Sample Details:	BH8S-002	Job Number:	W08_8722
LIMS ID Number:	EX0834587	Date Booked in:	07-Oct-08
QC Batch Number:	902	Date Extracted:	17-Oct-08
Quantitation File:	Initial Calibration	Date Analysed:	18-Oct-08
Directory:	017PAH_GC11\	Matrix:	Water
Dilution:	2.5	Ext Method:	Sep. Funnel

UKAS accredited?: No

Target Compounds	CAS #	R.T. (min)	Concentration ug/l	% Fit
Naphthalene	91-20-3	3.18	0.022	66
Acenaphthylene	208-96-8	-	< 0.010	-
Acenaphthene	83-32-9	-	< 0.010	-
Fluorene	86-73-7	-	< 0.010	-
Phenanthrene	85-01-8	-	< 0.010	-
Anthracene	120-12-7	-	< 0.010	-
Fluoranthene	206-44-0	-	< 0.010	-
Pyrene	129-00-0	-	< 0.010	-
Benzo[a]anthracene	56-55-3	-	< 0.010	-
Chrysene	218-01-9	-	< 0.010	-
Benzo[b]fluoranthene	205-99-2	-	< 0.010	-
Benzo[k]fluoranthene	207-08-9	-	< 0.010	-
Benzo[a]pyrene	50-32-8	-	< 0.010	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.010	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.010	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.010	-
Total (USEPA16) PAHs	-	-	< 0.172	-

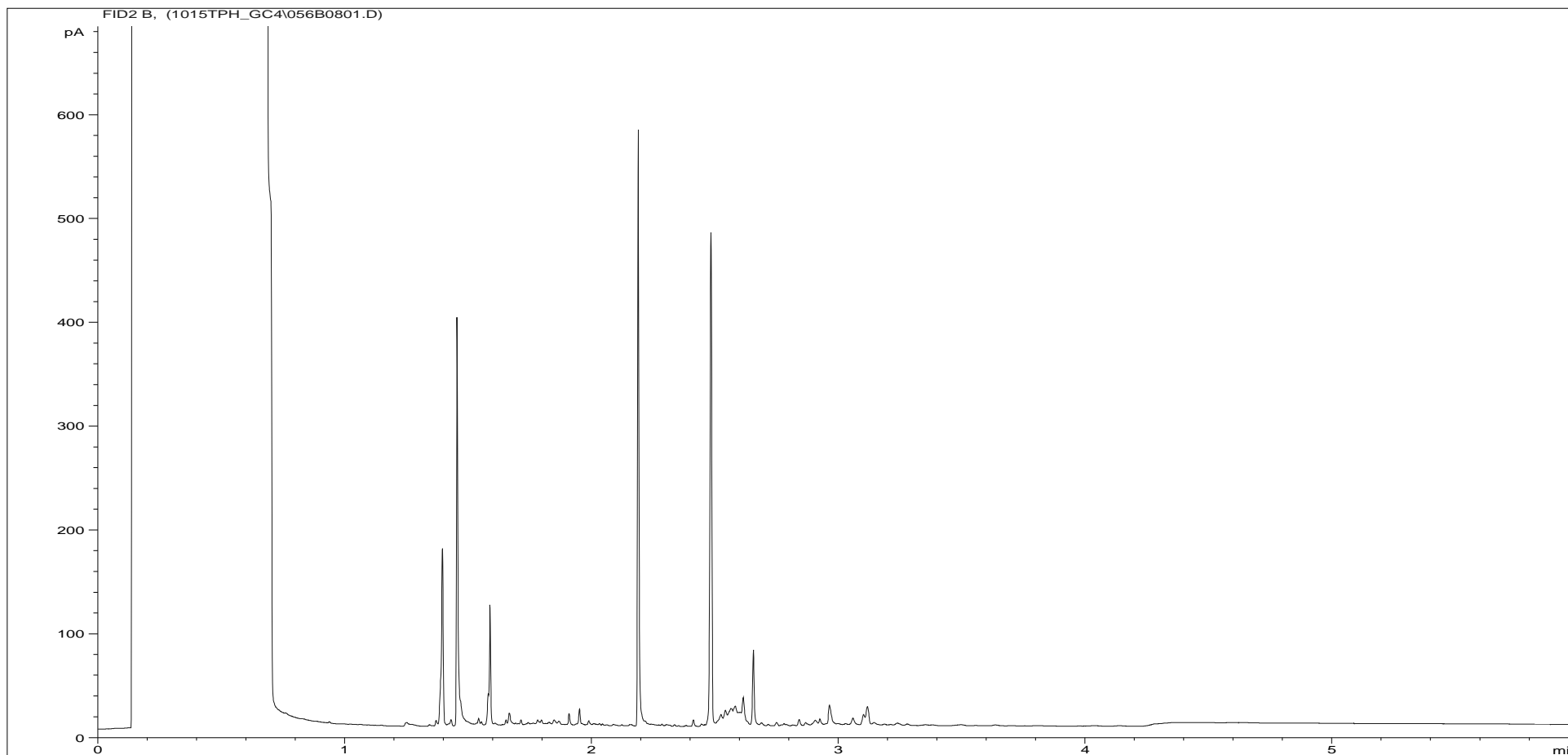
"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	103
Acenaphthene-d10	101
Phenanthrene-d10	97
Chrysene-d12	104
Perylene-d12	111

Surrogates	% Rec
Nitrobenzene-d5	N.D
2-Fluorobiphenyl	62
Terphenyl-d14	74

The Total PAH result is the sum of non-rounded individual PAH results and therefore may differ to the sum of the rounded individual PAH results printed above. By convention, where any one or more result is a "less than", the total is expressed as a "less than" and includes the "less than" concentration within the total.

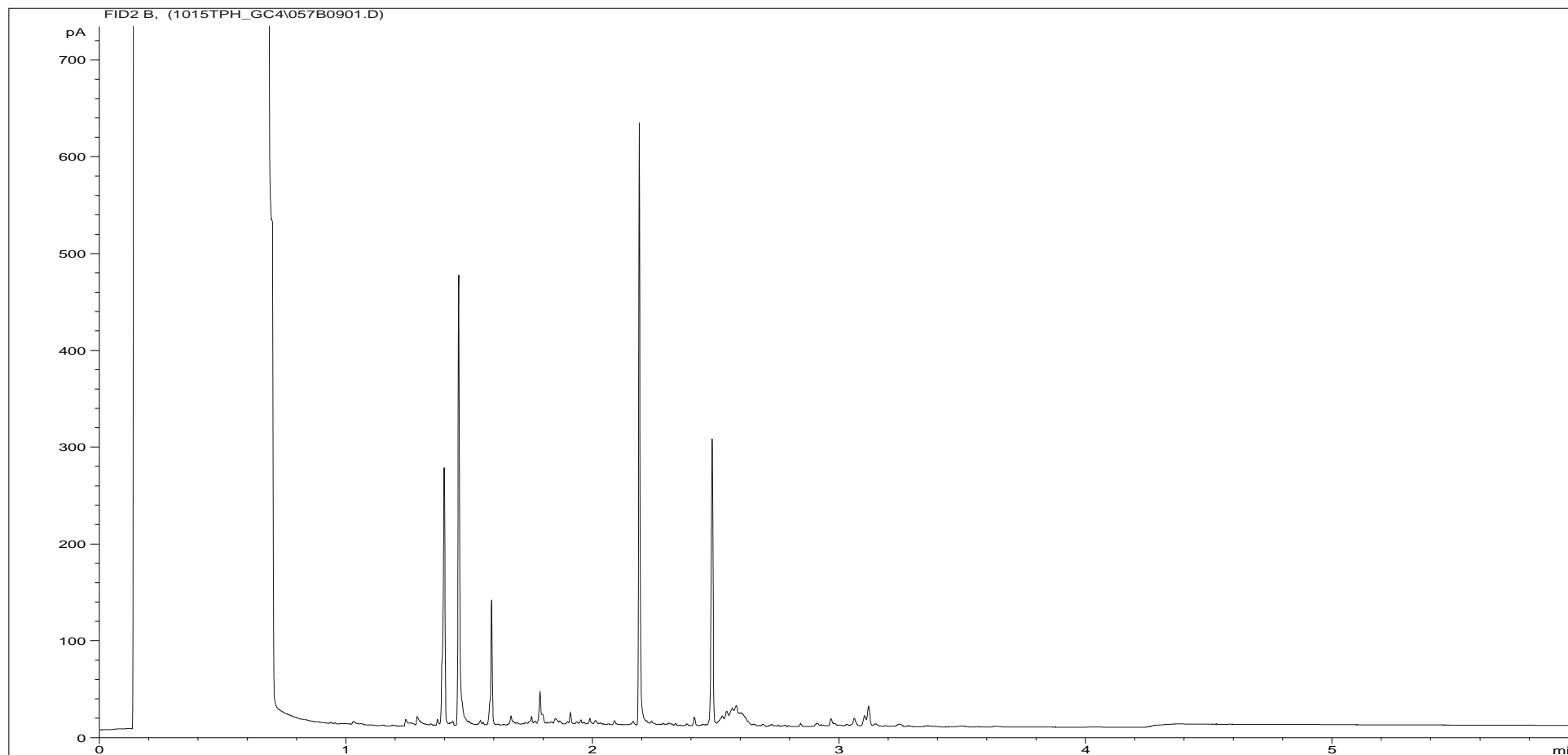
Petroleum Hydrocarbons (C8 to C40) by GC/FID



Sample ID:	EX0834584	Job Number:	W08_8722
Multiplier:	0.005	Client:	RPS Consultants
Dilution:	1	Site:	AWE Burghfield
Acquisition Method:	5UL_RUNF.M	Client Sample Ref:	BH8F-003
Acquisition Date/Time:	15-Oct-08		
Datafile:	D:\TES\DATA\Y2008\1015TPH_GC4\056B0801.D		

Where individual results are flagged see report notes for for status.

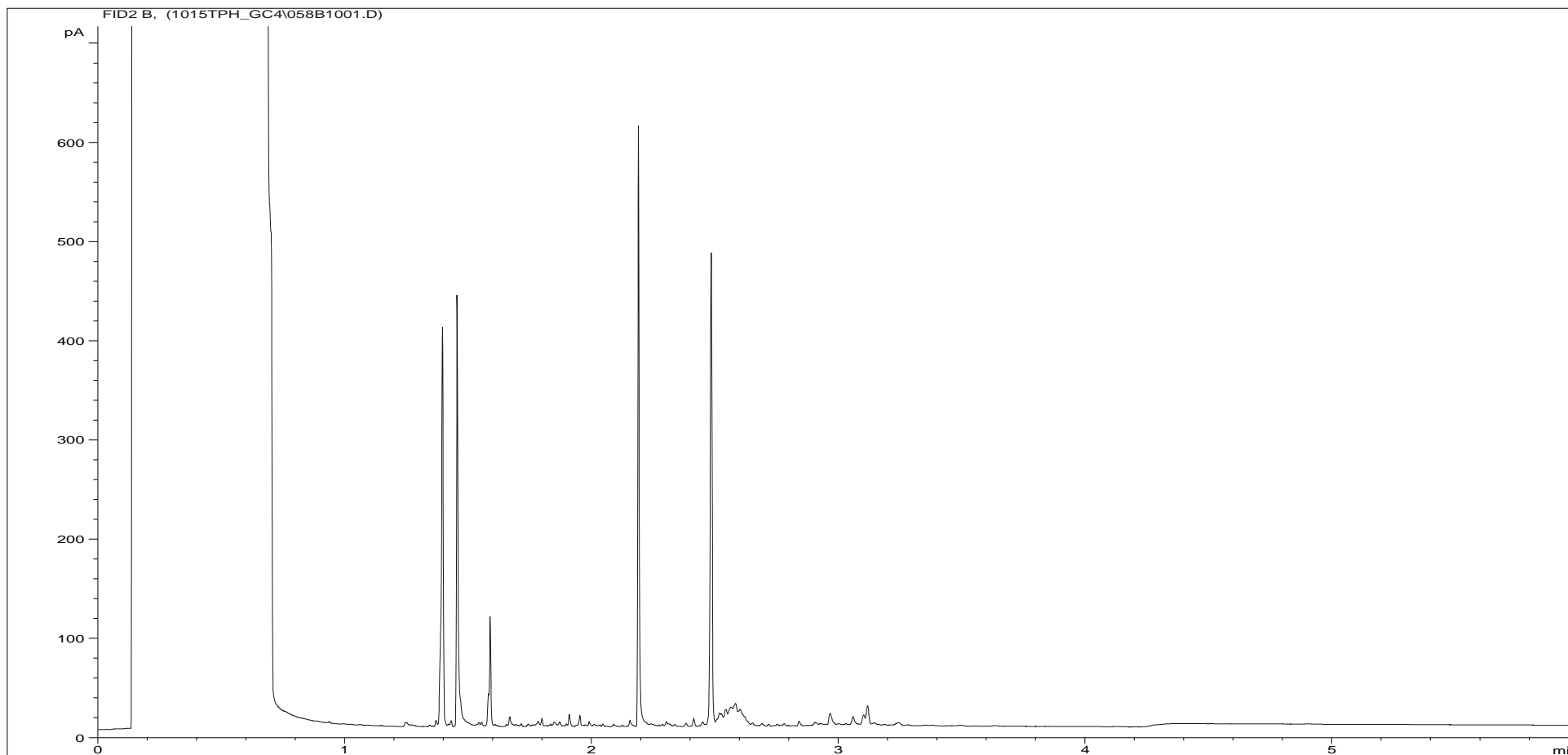
Petroleum Hydrocarbons (C8 to C40) by GC/FID



Sample ID:	EX0834585	Job Number:	W08_8722
Multiplier:	0.005	Client:	RPS Consultants
Dilution:	1	Site:	AWE Burghfield
Acquisition Method:	5UL_RUNF.M	Client Sample Ref:	BH8F-002
Acquisition Date/Time:	15-Oct-08		
Datafile:	D:\TES\DATA\Y2008\1015TPH_GC4\057B0901.D		

Where individual results are flagged see report notes for for status.

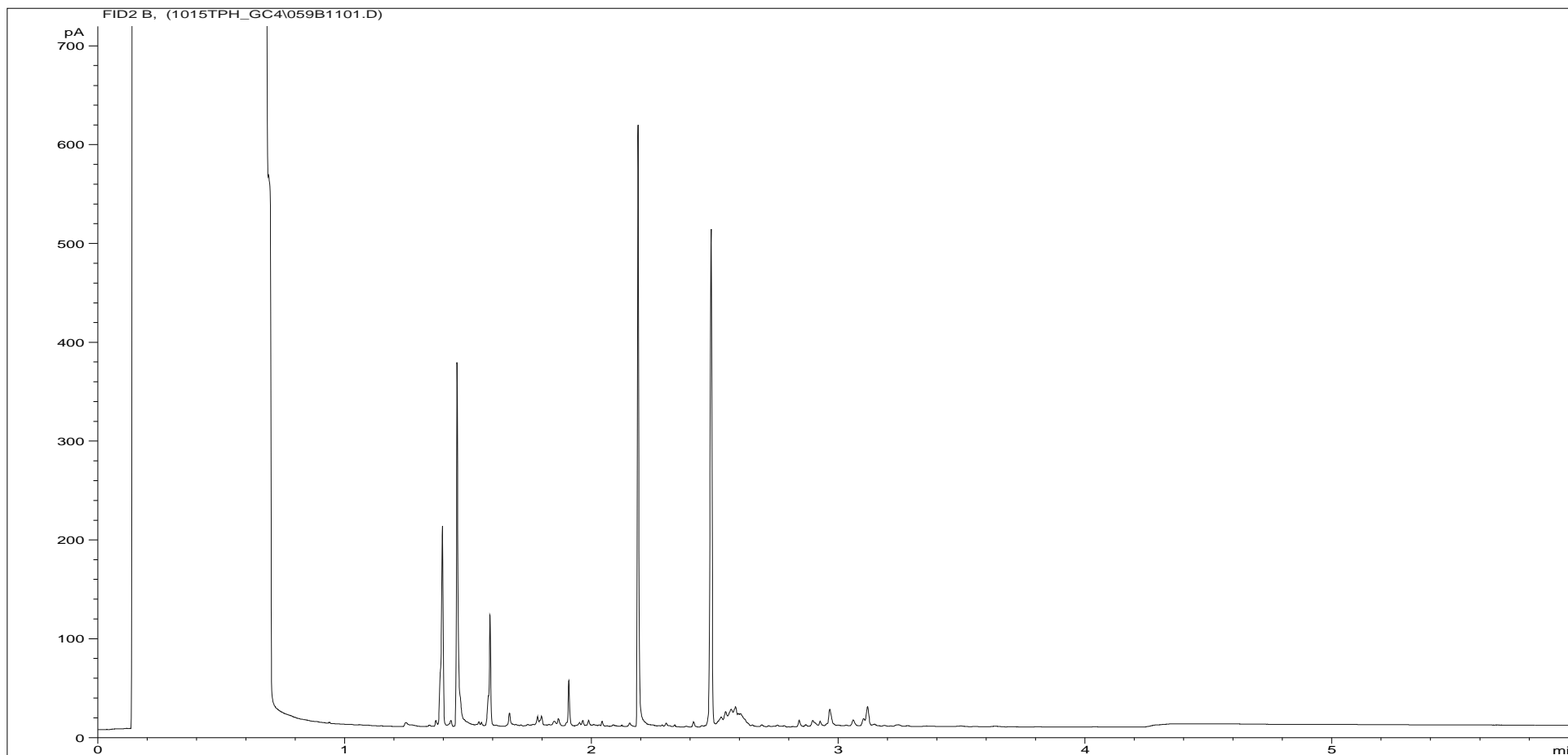
Petroleum Hydrocarbons (C8 to C40) by GC/FID



Sample ID:	EX0834586	Job Number:	W08_8722
Multiplier:	0.005	Client:	RPS Consultants
Dilution:	1	Site:	AWE Burghfield
Acquisition Method:	5UL_RUNF.M	Client Sample Ref:	BH8S-001
Acquisition Date/Time:	15-Oct-08		
Datafile:	D:\TES\DATA\Y2008\1015TPH_GC4\058B1001.D		

Where individual results are flagged see report notes for for status.

Petroleum Hydrocarbons (C8 to C40) by GC/FID



Sample ID:	EX0834587	Job Number:	W08_8722
Multiplier:	0.005	Client:	RPS Consultants
Dilution:	1	Site:	AWE Burghfield
Acquisition Method:	5UL_RUNF.M	Client Sample Ref:	BH8S-002
Acquisition Date/Time:	15-Oct-08		
Datafile:	D:\TES\DATA\Y2008\1015TPH_GC4\059B1101.D		

Where individual results are flagged see report notes for for status.

Report Notes

Soil/Solid analysis specific:

Results expressed as mg/kg on an air dried basis unless stated otherwise
S04 analysis not conducted in accordance with BS1377 unless otherwise stated
Water Soluble Sulphate on 2:1 water:soil extract
AR denotes analysis conducted on the As Received sample

Water analysis specific:

Results expressed as mg/l unless stated otherwise

Oil analysis specific:

Results expressed as mg/kg unless stated otherwise
S.G. expressed as g/cm³ @ 15°C

Filter analysis specific:

Results expressed as mg on filter unless stated otherwise

VOC analysis specific:

Explanatory notes for data flagging
U = undetected above reporting limit
J = concentration at instrument was below lowest calibration standard
E = concentration at instrument was above top calibration standard
B = compound was detected in method blank

Gas (Tedlar bag) analysis specific:

Results expressed as ug/l unless stated otherwise

Air (Carbon tube) analysis specific:

Results expressed as ug on tube unless stated otherwise

Asbestos analysis specific:

CH denotes Chrysotile
CR denotes Crocidolite
AM denotes Amosite
NADIS denotes No Asbestos Detected in Sample
NBFO denotes No Bulk fibres Observed

General notes:

^ this analysis was subcontracted to another laboratory
\$ Within laboratory tolerances
\$\$ unable to analyse due to nature of sample
¥ Results for guidance only, possible interference
& Blank corrected
I.S insufficient sample for analysis
Intf Unable to analyse due to interferences
N.D Not determined
N.R Not recorded
N.Det Not detected
Req Analysis Requested, see attached sheets for results
p Raised detection limit due to nature of sample
***** denotes that all accreditation has been removed by the laboratory for this result.
‡ denotes that Mcerts accreditation has been removed by the laboratory for this result.
Note: The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected.

If you require further details of the circumstances leading to the removal of the accreditation from any data item please do not hesitate to contact the laboratory

END OF REPORT



TEST REPORT

WATER SAMPLE ANALYSIS



TES Report No. EXR/088727 (Ver. 1)

RPS Consultants
Park House
Greyfriars Road
Cardiff
CF10 3AF

Site: AWE Burghfield

The 1 sample described in this report was logged for analysis by TES Bretby on 07-Oct-2008.
The analysis was completed by: 21-Oct-2008

Tests where the accreditation is set to N or No, and any individual data items marked with a * are not UKAS accredited
Any opinions or interpretations expressed herein are outside the scope of any UKAS accreditation held by TES Bretby Laboratories.

The following tables are contained in this report:

- Table 1 Main Analysis Results (Pages 2 to 3)
- Table of PAH (MS-SIM) (10) Results (Page 4)
- GC-FID Chromatograms (Page 5)
- Table of VOC (HSA) Results (Pages 6 to 10)
- Table of VOC (Tics) Results (Pages 11 to 15)
- Table of Report Notes (Page 16)

On behalf of
TES Bretby :
J Elstub


Project Co-ordinator

Date of Issue: 21-Oct-2008

Tests marked '^' have been subcontracted to another laboratory.

TES Bretby accepts no responsibility for any sampling not carried out by our personnel.

Where individual results are flagged see report notes for for status.

Units :	mg/l		mg/l		mg/l		mg/l		mg/l		mg/l		mg/l		mg/l		mg/l	
	Method Codes :	WLSM3	Calc	CPWATVAR	CPWATVAR	CPWATVAR	ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSW	ICPMSW	KONEFE	KONEFE	KONEFE	ICPMSW
Method Reporting Limits :			3.0	1.0	1.0	0.001	0.001	0.0001	0.001	0.001	0.001	0.002	0.002	0.01	0.01	0.01	0.001	
UKAS Accredited :	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
TES ID Number	Client Sample Description	Sample Date	pH units	Total Hardness as CaCO3	Total Sulphur as SO4 (Dissolved) a	Calcium as Ca (Dissolved) a	Magnesium as Mg (Dissolved) a	Nickel as Ni (Dissolved)	Chromium as Cr (Dissolved)	Cadmium as Cd (Dissolved)	Copper as Cu (Dissolved)	Lead as Pb (Dissolved)	Zinc as Zn (Dissolved)	Manganese as Mn (Dissolved)	Ferric Iron as Fe(3+)	Ferrous Iron as Fe(2+)	Iron as Fe:(Total)	Arsenic as As (Dissolved)
0834598	BH8F-001	02-Oct-08	6.9	2490	2090	423	349	0.025	0.008	0.0002	0.004	0.001	0.046					0.003

TES Bretby

PO Box 100, Bretby Business Park,
 Burton-on-Trent, Staffordshire, DE15 0XD
 Tel +44 (0) 1283 554400
 Fax +44 (0) 1283 554422

Client Name

RPS Consultants

Contact

Mr G Moore

Water Sample Analysis

Date Printed

21-Oct-08

Report Number


EXR/088727

Table Number

1

AWE Burghfield



			Units :	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	ug/l	mg/l	ug/l	mg/l	mg/l	mg/l		
			Method Codes :	CPWATVAR	ICPMSW	ICPMSW	KONENS	KONENS	KONENS	KONENS	WSLM11	WSLM13	VOCSWHSAC	CPWATVAR	PAHSWSIM	CPWATVAR	WSLM20	TPHFID	
			Method Reporting Limits :	0.01	0.0001	0.001	0.01	0.01	0.2	0.01	5	0.1	1	0.01	0.01	0.01	2	0.01	
			UKAS Accredited :	yes	yes	yes	yes	yes	yes	yes	yes	yes	no	no	no	no	no	no	
TES ID Number	EV	Client Sample Description	Sample Date	Boron as B (Dissolved) a	Mercury as Hg (Dissolved)	Selenium as Se (Dissolved)	Ammoniacal Nitrogen as N	Nitrite as N	Nitrate as N	Phosphate as P	Chemical Oxygen Demand	Total Organic Carbon	Volatile Organic Compounds	Barium as Ba (Dissolved) a	PAH MS-SIM (16)	Beryllium as Be (Dissolved) a	Biochemical Oxygen Demand	TPH GC (0.01)	
0834598		BH8F-001	02-Oct-08	0.50	<0.0001	0.006	0.21	0.09	1.0	0.27		5.7		0.08	Req	>0.01		0.02	
TES Bretby PO Box 100, Bretby Business Park, Burton-on-Trent, Staffordshire, DE15 0XD Tel +44 (0) 1283 554400 Fax +44 (0) 1283 554422			Client Name RPS Consultants Contact Mr G Moore	AWE Burghfield								Water Sample Analysis Date Printed 21-Oct-08 Report Number EXR/088727 Table Number 1							

Polycyclic Aromatic Hydrocarbons GC/MS (SIM)

Customer and Site Details:	RPS Consultants: AWE Burghfield		
Sample Details:	BH8F-001	Job Number:	W08_8727
LIMS ID Number:	EX0834598	Date Booked in:	07-Oct-08
QC Batch Number:	899	Date Extracted:	16-Oct-08
Quantitation File:	Initial Calibration	Date Analysed:	17-Oct-08
Directory:	1017PAH.GC5\	Matrix:	Water
Dilution:	2.5	Ext Method:	Sep. Funnel

UKAS accredited?: No

Target Compounds	CAS #	R.T. (min)	Concentration ug/l	% Fit
Naphthalene	91-20-3	-	< 0.010	-
Acenaphthylene	208-96-8	-	< 0.010	-
Acenaphthene	83-32-9	-	< 0.010	-
Fluorene	86-73-7	-	< 0.010	-
Phenanthrene	85-01-8	-	< 0.010	-
Anthracene	120-12-7	-	< 0.010	-
Fluoranthene	206-44-0	-	< 0.010	-
Pyrene	129-00-0	-	< 0.010	-
Benzo[a]anthracene	56-55-3	-	< 0.010	-
Chrysene	218-01-9	-	< 0.010	-
Benzo[b]fluoranthene	205-99-2	-	< 0.010	-
Benzo[k]fluoranthene	207-08-9	-	< 0.010	-
Benzo[a]pyrene	50-32-8	-	< 0.010	-
Indeno[1,2,3-cd]pyrene	193-39-5	-	< 0.010	-
Dibenzo[a,h]anthracene	53-70-3	-	< 0.010	-
Benzo[g,h,i]perylene	191-24-2	-	< 0.010	-
Total (USEPA16) PAHs	-	-	< 0.160	-

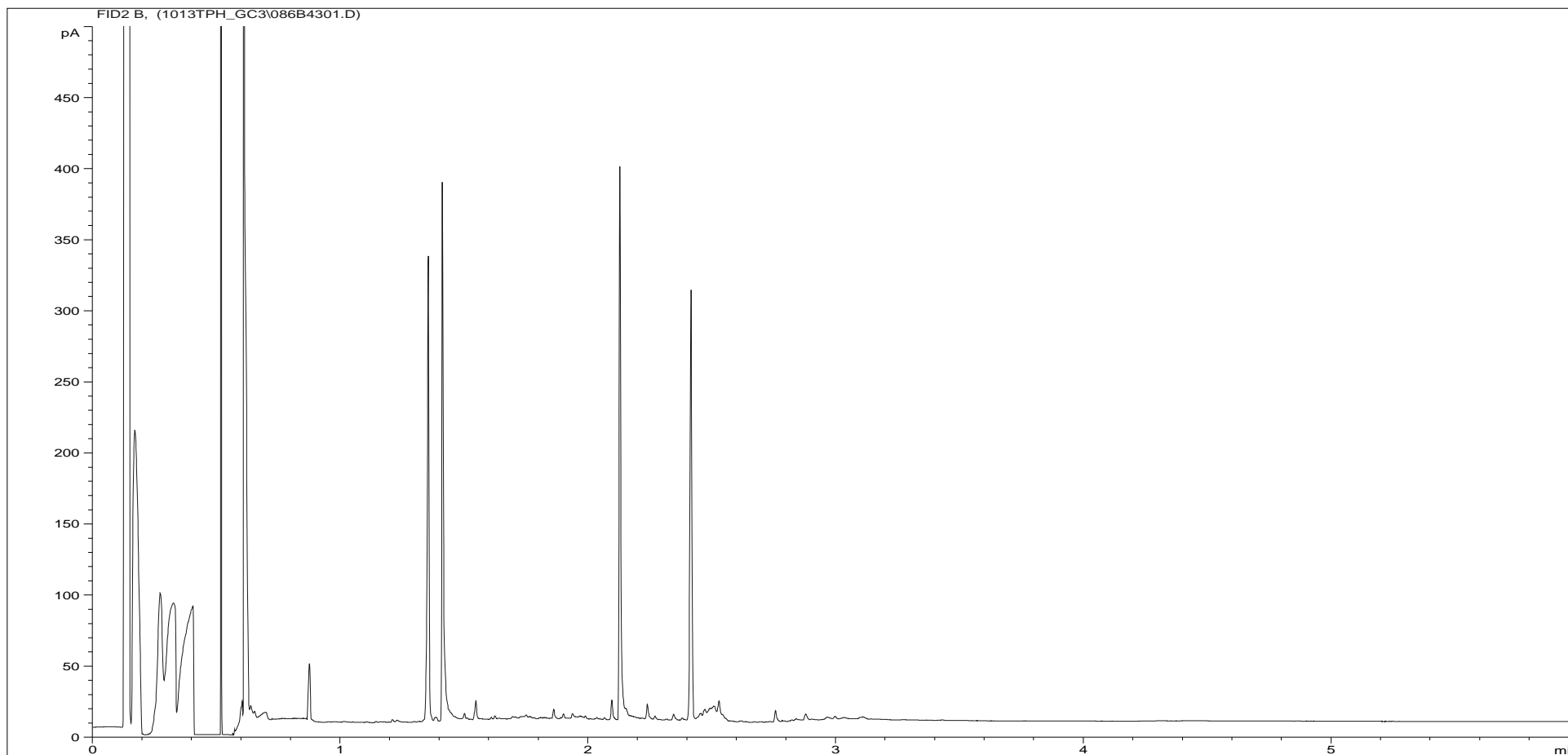
"M" denotes that % fit has been manually interpreted

Internal Standards	% Area
1,4-Dichlorobenzene-d4	NA
Naphthalene-d8	104
Acenaphthene-d10	102
Phenanthrene-d10	108
Chrysene-d12	110
Perylene-d12	105

Surrogates	% Rec
Nitrobenzene-d5	N.D
2-Fluorobiphenyl	62
Terphenyl-d14	69

The Total PAH result is the sum of non-rounded individual PAH results and therefore may differ to the sum of the rounded individual PAH results printed above. By convention, where any one or more result is a "less than", the total is expressed as a "less than" and includes the "less than" concentration within the total.

Petroleum Hydrocarbons (C8 to C40) by GC/FID



Sample ID:	EX0834598	Job Number:	W08_8727
Multiplier:	0.005	Client:	RPS Consultants
Dilution:	1	Site:	AWE Burghfield
Acquisition Method:	5UL_RUNF.M	Client Sample Ref:	BH8F-001
Acquisition Date/Time:	13-Oct-08		
Datafile:	D:\TES\DATA\Y2008\1013TPH_GC3\086B4301.D		

Where individual results are flagged see report notes for for status.

Report Notes

Soil/Solid analysis specific:

Results expressed as mg/kg on an air dried basis unless stated otherwise
S04 analysis not conducted in accordance with BS1377 unless otherwise stated
Water Soluble Sulphate on 2:1 water:soil extract
AR denotes analysis conducted on the As Received sample

Water analysis specific:

Results expressed as mg/l unless stated otherwise

Oil analysis specific:

Results expressed as mg/kg unless stated otherwise
S.G. expressed as g/cm³ @ 15°C

Filter analysis specific:

Results expressed as mg on filter unless stated otherwise

VOC analysis specific:

Explanatory notes for data flagging
U = undetected above reporting limit
J = concentration at instrument was below lowest calibration standard
E = concentration at instrument was above top calibration standard
B = compound was detected in method blank

Gas (Tedlar bag) analysis specific:

Results expressed as ug/l unless stated otherwise

Air (Carbon tube) analysis specific:

Results expressed as ug on tube unless stated otherwise

Asbestos analysis specific:

CH denotes Chrysotile
CR denotes Crocidolite
AM denotes Amosite
NADIS denotes No Asbestos Detected in Sample
NBFO denotes No Bulk fibres Observed

General notes:

^ this analysis was subcontracted to another laboratory
\$ Within laboratory tolerances
\$\$ unable to analyse due to nature of sample
¥ Results for guidance only, possible interference
& Blank corrected
I.S insufficient sample for analysis
Intf Unable to analyse due to interferences
N.D Not determined
N.R Not recorded
N.Det Not detected
Req Analysis Requested, see attached sheets for results
p Raised detection limit due to nature of sample
***** denotes that all accreditation has been removed by the laboratory for this result.
‡ denotes that Mcerts accreditation has been removed by the laboratory for this result.
Note: The Laboratory may only claim that data is accredited when all of the requirements of our Quality System have been met. Where these requirements have not been met the laboratory may elect to include the data in its final report and remove the accreditation from individual data items if it believes that the validity of the data has not been affected.

If you require further details of the circumstances leading to the removal of the accreditation from any data item please do not hesitate to contact the laboratory

END OF REPORT